TASK 210: SURFICIAL SITE INVESTIGATION Volume 1

Reconstruction of Route 1 (Boston Post Road) From East of Lambert Road to Dogburn Lane Orange, Connecticut

ConnDOT Assignment No. 200-3619 ConnDOT Project No. 106-109

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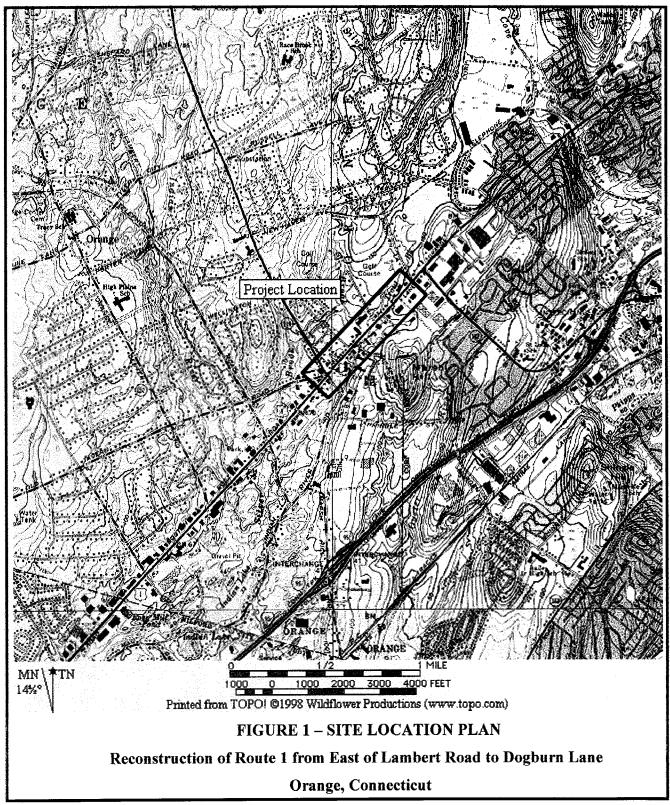
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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (ConnDOT), Maguire Group Inc. has conducted a Task 210 - Surficial Site Investigation in association with the Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane in Orange, Connecticut. The proposed construction project will involve the installation of dual left-turning lanes on U.S. Route 1 in Orange from east of Dogburn Lane to Lambert Road, for a total length of approximately 1,740 meters (5,722 feet). The proposed project will involve the full depth reconstruction of U.S Route 1 (Boston Post Road), the construction of exclusive turning lanes, and traffic control improvements throughout the project length. Based upon a review of the proposed construction plans, it is anticipated that the project will involve rights-of-way taking, cut and fill activities, drainage structure improvements, and utility realignments.

This Task 210 - Surficial Site Investigation was conducted along Route 1 and its associated side-streets, in areas of anticipated construction and/or right-of-way activities, adjacent to properties that were identified as having a moderate or high risk designation in MGI's January, 1999 Task 110 - Corridor Land Use Evaluation report. Figure 1 depicts the project area.

The purpose of the Task 210 - Surficial Site Investigation was to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction. It is anticipated that a Task 310 Remedial Management Plan (RMP) will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.



2.0 SITE DESCRIPTION

2.1 Background

The Task 210 - Surficial Site Investigation was conducted within the areas of proposed construction and/or right-of-way activities in the vicinity of thirty-six moderate or high risk designated properties along Route 1. The following summarizes the thirty-six parcels and their locations.

- 316 Boston Post Road This parcel was assigned a moderate risk because it has contained the Vadney Fuel Oil business since the early 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 312 Boston Post Road This parcel was assigned a moderate risk because the property has contained the Fox Steel and Wasau Metals business since the early 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 305 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a machine shop during the 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 302 306 Boston Post Road This parcel was assigned a moderate risk because it contains Taylor Equipment Rental and Ryder Truck Rental. The property also contained a gas station, car wash, and automotive repair shop prior to the 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 301 Boston Post Road This parcel was assigned a moderate risk because it formerly contained the Colonial Wood Products company prior to the 1970's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 300 Boston Post Road This parcel was assigned a moderate risk because it contains the Park City Steel and Builders companies. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 292 Boston Post Road This parcel was assigned a moderate risk because it formerly housed a welding company during the mid-1960's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.
- 284 286 Boston Post Road This parcel was assigned a moderate risk because it contains the Knight Lawnmower Sales and Service company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

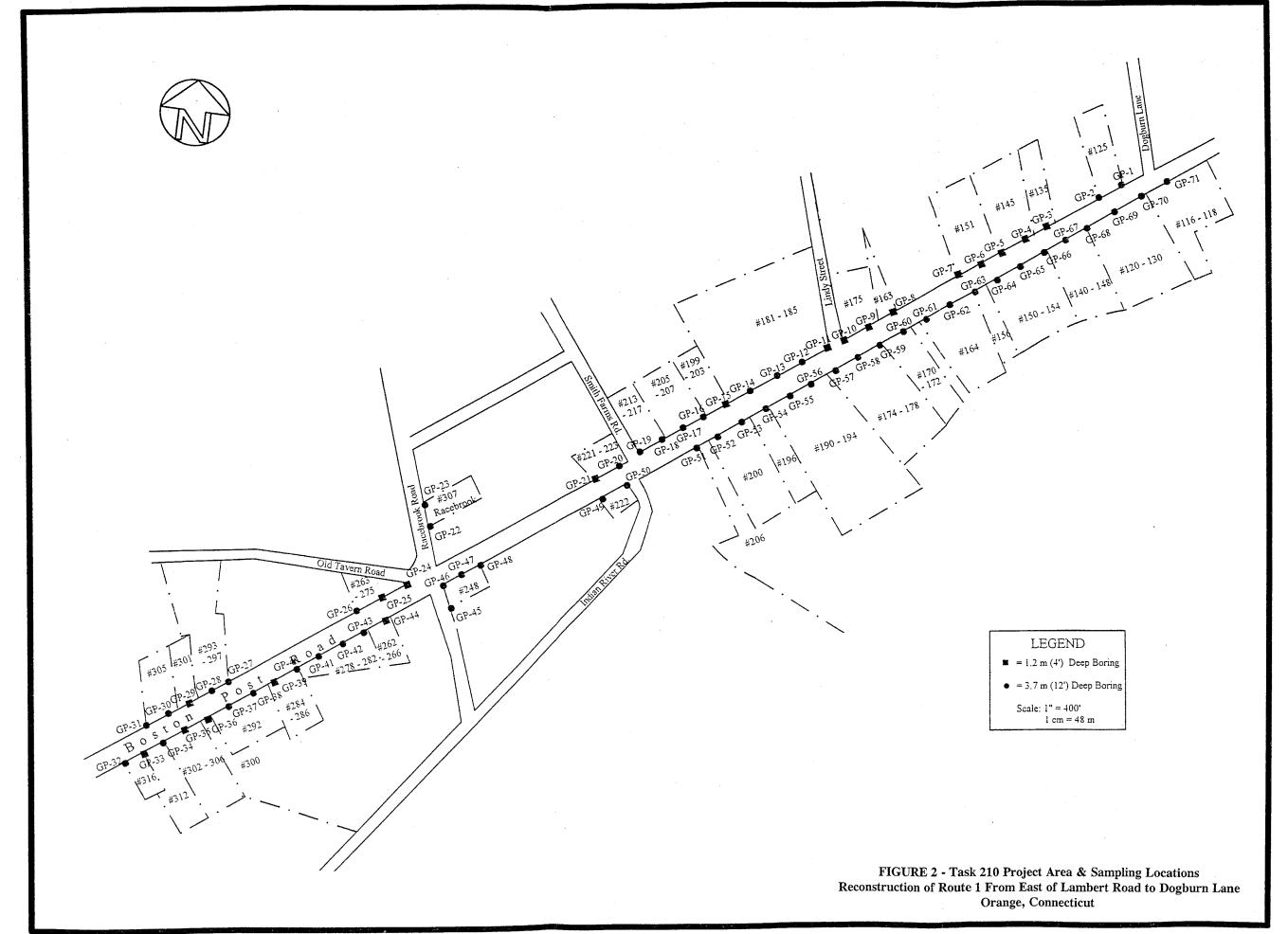
- 278 282 Boston Post Road This parcel was assigned a moderate risk because it formerly housed a graphics and printing company during the early 1990's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 263 275 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a dry cleaning business from the 1960's to 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 262 266 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a spray-painting business prior to the mid-1960's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 248 Boston Post Road This parcel was assigned a moderate risk because it contains a gasoline service station. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 222 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a newspaper print shop during the late 1970's and a paper company during the early 1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 221 223 Boston Post Road This parcel was assigned a moderate risk because it formerly contained an upholstering company during the early 1960's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 213 217 Boston Post Road This parcel was assigned a moderate risk because it formerly contained the Tamaro Oil Company during the mid-1990's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 206 Boston Post Road This parcel was assigned a moderate rating because it contains a government military facility, which is also listed as a RCRA generator of hazardous waste. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 205 207 Boston Post Road This parcel was assigned a moderate risk because it formerly housed a truck company and truck body manufacturer prior to the mid-1950's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.
- 199 203 Boston Post Road The Comp-USA parcel was assigned a moderate risk because it formerly contained a lumber yard and trucking company prior to the 1970's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

196 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Fluid Technical Corp., Burt Process Equipment, and Anchor Rubber prior to the early 1990's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

- 190 194 Boston Post Road This parcel was assigned a moderate risk because it formerly housed a machine shop prior to the 1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 181 185 Boston Post Road This parcel was assigned a moderate rating because it formerly housed a dry cleaning business and trucking company prior to the late 1980's. In addition, J. Gerard Cleaners was listed as a RCRA generator of hazardous waste. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.
- 307 Racebrook Road This parcel was assigned a moderate risk because it formerly contained a fuel oil distributor prior to the late 1950's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 175 Boston Post Road This parcel was assigned a moderate risk because it may have formerly contained a gasoline service station during the 1950's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 174 178 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the early 1970's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.
- 170 172 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the mid-1980's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.
- 164 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a welding company prior to the late 1970's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.
- 163 Boston Post Road This parcel was assigned a moderate risk because it contains a printing business. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 156 Boston Post Road This parcel was assigned a moderate risk because it has contained a construction company since the mid-1980's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

- 150 154 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a lumber company prior to the late-1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 140 148 Boston Post Road This parcel was assigned a moderate risk because it formerly contained the Industrial Sheet Metal business prior to the mid-1980's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 145 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a trucking company, an oil company, and a diaper service prior to the mid-1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 135 Boston Post Road This parcel was assigned a moderate risk because it formerly contained an oil company and a welding company prior to the 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.
- 120 130 Boston Post Road This parcel was assigned a moderate risk because it may have formerly contained a machine products manufacturer. According to the ConnDOT construction plans for the project, a partial strip take and cut activities are proposed for this property.
- 125 Boston Post Road This parcel was assigned a moderate risk because it formerly contained Town Fair Tire, Meineke Muffler, an automotive repair shop, and a lumber company prior to the early-1990's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.
- 116 118 Boston Post Road This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the late-1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.
- 151 Boston Post Road This parcel was assigned a high risk because of a documented release of gasoline from three on-site USTs at the Thornton Gasoline Station in 1989. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

The site area is depicted in the attached Figure 2 - Task 210 Project Area & Sampling Locations.



3.0 LOCAL ENVIRONMENT & RECEPTORS

3.1 Groundwater

According to the Connecticut Department of Environmental Protection (CTDEP) 1993 Adopted Water Quality Classifications for the South Central Basin, the groundwater classification for the project corridor is "GA". A "GA" groundwater classification indicates that the groundwater in the area may be within the influence of private and potential public water supply sources. The groundwater is considered suitable for direct human consumption without the need for treatment. All of the properties within the project corridor are connected to the public water supply system and municipal sewer system. In addition, there are no public water supply wells located within a 1,609 meter (1 mile) radius of the project area, according to the CTDEP Bulletin 4, "The Atlas of the Public Water Supply Sources and Drainage Basins of Connecticut," June, 1982.

Groundwater was encountered in only two of the Geoprobe® soil borings, at depths of 1.2 and 2.1 meters (4 and 7 feet) below grade.

3.2 Geology

The United States Department of Agriculture Soil Conservation Service's 1992 "Surficial Materials Map of Connecticut" indicates that the soil in the vicinity of the Task 210 project area consists of the Charlton-Hollis formation. This soil unit is described as a brownish, sandy soil with a loamy substratum.

The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the Site area is the Lower Member of the Maltby Lakes Metavolcanics, which is a gray to green, fine-grained schist or phyllite. A bluish-green fine-grained phyllite was encountered in all of the borings located within the project corridor area, at depths ranging from 0.9 to 3.0 meters (3 to 10 feet) below grade.

3.3 Regional Physiography

The general surficial topography is relatively flat, with a very gentle downward slope to the south/southeast. Based upon this, it is estimated that surface water runoff flows to the south/southeast. Silver Brook is located within the project corridor, and it is classified as a Class "A" surface water body, which indicates that the water is known or presumed to meet Water Quality Criteria which support designated uses. The designated uses of Class "A" surface waters include recreational, agricultural and industrial supply, as well as fish and wildlife habitat, and other legitimate uses including navigation.

4.0 SUBSURFACE INVESTIGATION

Based upon the current and past land use of the properties within the project corridor, a comprehensive sampling program was conducted within the proposed construction and right-of-way areas adjacent to the thirty-six moderate or high risk designated properties discussed in Section 2.1. The following subsections detail the proposed investigation.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

On October 28, October 29, November 14, November 19, November 20, and November 21, 1999, seventy-one (71) Geoprobe® soil borings were advanced within proposed areas of construction and right-of-way activities adjacent to the thirty-six (36) moderate to high risk designated properties. The Geoprobe® borings were advanced by Logical Environmental Solutions, under the direction of Maguire Group Inc. The locations of the Geoprobe® soil borings are depicted on Figure 2 - Task 210 Project Area & Sampling Locations.

The Geoprobe® soil borings were advanced to a depth of 3.7 meters (12 feet) below grade, unless there was refusal on suspected bedrock or a cobble, or 1.2 meters (4 feet) below grade, depending upon the anticipated depth of excavation during construction in each area. The borings were spaced in an approximate 30.5 meter (100 foot) linear grid. Continuous soil samples were collected utilizing a 1.2 meter (4-foot) long, 5 centimeter (2-inch) diameter Macro Core Sampler with dedicated acetate liners. The soil samples were visually inspected in

the field for staining, and described as to physical characteristics and soil type. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). Soil boring logs were generated in the field by Maguire field personnel. The boring logs denote the types of soil encountered, the depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one soil sample from each boring was placed in glassware supplied by Con-Test Analytical Laboratory, and stored in an ice-filled cooler. The first macro core sample from each boring was segregated and split into a 0 to 0.6 meter (0'-2') sample and a 0.6 to 1.2 meter (2'-4') sample. The shallow soil sample (0 to 0.6 meter/0' to 2' below grade) was selected for laboratory analyses if field screening and visual observation did not indicate the presence of contaminants in the other sample intervals. The analyses for each soil sample included volatile organic compounds (VOCs) utilizing EPA Method 8260, total petroleum hydrocarbons (TPH) utilizing EPA Method 418.1, polynuclear aromatic hydrocarbons (PAHs) utilizing EPA Method 8270, total RCRA 8 metals, and SPLP RCRA 8 metals.

All Geoprobe® soil borings were back-filled and patched upon completion utilizing clean sand and/or hydrated bentonite. All down-hole sampling equipment was decontaminated in accordance with Maguire's August, 1999 Task 210 Surficial Site Investigation Work Plan.

4.2 Groundwater Sample Collection & Groundwater Analyses

Two (2) groundwater grab samples (GP-12 & GP-32) were collected from the only two boring locations in which groundwater was encountered. The groundwater grab samples were collected by placing dedicated PVC screen and riser casing into the borehole. Dedicated polyethylene tubing was inserted into the casing and groundwater was drawn through the tubing using a low-flow peristaltic pump. After approximately three well volumes were

evacuated from the well, the groundwater samples were placed in glassware supplied by Con-Test Laboratory, and stored in an ice-filled cooler. The groundwater samples were analyzed for VOCs utilizing EPA Method 8260, TPH utilizing EPA Method 418.1, PAHs utilizing EPA Method 8270, and total RCRA 8 metals.

4.3 Project Quality Assurance/Quality Control Practices

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected on each day of sampling activities. Six field blank water samples were collected during the field investigation. The field blank samples were prepared by pouring laboratory supplied de-ionized water through an acetate liner and macro core cutting shoe, and collecting the resulting rinsate in appropriate sample containers. In addition, six trip blanks were prepared by Con-Test Laboratory. The trip blank and field blank samples were stored with the daily samples in the sample cooler until subsequent delivery to the laboratory for analysis. The field blanks were analyzed for the same parameters specified for the daily samples. The trip blanks were analyzed for volatile organic compounds.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms were filled out and accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample. All sampling equipment was either dedicated to a specific sample or was decontaminated prior to and between each use. Sampling equipment was not placed near solvents, gasoline, or other materials that may have impacted the integrity of the samples.

5.0 DISCUSSION OF SAMPLE RESULTS

5.1 Regulatory Criteria

The CTDEP adopted Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) as of January 31, 1996. The Remediation Standard Regulations (RSRs) apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CTDEP Commissioner. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites, upon approval by the CTDEP.

The RSRs criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation is discussed in subsection 5.2 and 5.3 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately 4.6 meters (15 feet) of the ground surface. Concentrations of contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of a land use restriction on the property. The DEC is not applicable to inaccessible soils, including soil more than 1.2 meters

(4 feet) below the ground surface, 0.6 meters (2 feet) below pavement greater than 7.6 centimeters (3 inches) thick, or below an existing building, provided that an Environmental Land Use Restriction (ELUR) is placed in effect for the property.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality. Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas. Since the site is located in a GA groundwater area, the most stringent criteria are applied for contaminants detected in the soil.

Groundwater Criteria. Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GWPC), the Volatilization Criteria, as well as the Surface Water Protection Criteria (SWPC). The GWPC, Volatilization Criteria, and SWPC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation.

Groundwater Protection Criteria

The purpose of the Groundwater Protection Criteria is to protect the groundwater quality in areas that have the potential to use groundwater as a drinking water resource (GA & GAA groundwater classification areas). Since the project area is located within a GA groundwater area and a public water supply source is available, the GWPC apply.

Volatilization Criteria

The purpose of the Volatilization Criteria standard is to ensure that volatile organic compounds (VOCs) in groundwater do not pose an unacceptable risk to human health due to the inhalation of VOCs that may enter into a structure on the property. The Volatilization Criteria only apply when impacted groundwater is located within 4.6 meters (15 feet) of the ground surface or any

structure. Different criteria exist for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of an ELUR on the property. Since groundwater was located within 4.6 meters (15 feet) of the ground surface, the Volatilization Criteria apply to this Site.

Surface Water Protection Criteria

The purpose of the Surface Water Protection Criteria (SWPC) standards are to ensure that groundwater discharging to a surface water body will not adversely effect surface water quality. Since groundwater within the corridor likely discharges to the Silver Brook, the SWPC apply to contaminants detected in the groundwater.

5.2 Results of Soil Sample Analyses

Soil samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the soil samples is presented in Tables 1(a) to 1(r), which are located at the end of this report, and copies of the soil sample analytical results are included in Appendix B. The following summarizes the results of the analyses conducted on the soil samples.

Varying concentrations of petroleum hydrocarbons (TPH) were detected in all of the borings from Below Detectable Limits (BDL) to 647 parts per million (ppm). However, only two soil samples contained concentrations of TPH that exceed the CTDEP Remediation Standard Regulations (RSRs) Pollutant Mobility Criteria (PMC) and Residential Direct Exposure Criteria (RDEC) concentration of 500 ppm. The soil samples from borings GP-40 and GP-71 contained TPH at concentrations of 647 ppm and 520 ppm, respectively.

Only five of the seventy-one soil samples analyzed as part of this investigation contained detectable concentrations of volatile organic compounds (VOCs). The compound secbutylbenzene was detected in the GP-65 soil sample at a concentration of 14 parts per billion (ppb). However, this concentration does not exceed any applicable CTDEP RSRs. Methylene chloride was detected in the soil samples collected from GP-52 (78 ppb), GP-61 (88 ppb), GP-62 (111 ppb), and GP-63 (85 ppb). The concentration of methylene chloride detected in the sample from GP-62 exceeds the PMC of 100 ppb. However, methylene chloride was also detected in several of the trip and field blank samples collected as part of this investigation. Substances containing methylene chloride are not used in association with the field equipment decontamination procedures, and therefore its presence in the soil and blank samples is likely due to laboratory contamination. Methylene chloride is used in the laboratory as a cleaning solvent, as well as in the extraction processes of certain analyses.

In addition, it should be noted that the soil samples GP-47, and GP-53 to GP-71 were run one to five days past their 14-day holding time due to a malfunction with the laboratory's equipment.

Several polynuclear aromatic hydrocarbon (PAH) compounds were detected throughout the project corridor at varying concentrations. Total PAH concentrations ranged from ND to 73.12 ppm. Seventeen samples contained concentrations of PAH compounds that exceed applicable CTDEP RSRs. The GP-3 soil sample contained the compounds benzo(b)fluoranthene (2.3 ppm) and indeno(1,2,3-cd)pyrene (2.17 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-8 soil sample contained the compounds benzo(a)anthracene (1.48 ppm), benzo(a)pyrene (1.62 ppm), benzo(b)fluoranthene (2.21 ppm), chrysene (1.83 ppm), and indeno(1,2,3-cd)pyrene (1.27 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential

DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-9 soil sample contained the compounds benzo(a)anthracene (1.06 ppm), benzo(a)pyrene (1.16 ppm), benzo(b)fluoranthene (1.51 ppm), and chrysene (1.12 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-15 soil sample contained the compounds benzo(a)anthracene (2.53 ppm), benzo(a)pyrene (2.87 ppm), benzo(b)fluoranthene (5.27 ppm), benzo(k)fluoranthene (3.47 ppm), chrysene (3.4 ppm), indeno(1,2,3-cd)pyrene (1.47 ppm), and pyrene (6.33 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-20 soil sample contained the compounds benzo(a)anthracene (1.63 ppm), benzo(a)pyrene (2.0 ppm), benzo(b)fluoranthene (2.07 ppm), benzo(k)fluoranthene (1.93 ppm), chrysene (2.47 ppm), and indeno(1,2,3-cd)pyrene (1.67 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-24 soil sample contained the compounds benzo(a)anthracene (1.7 ppm), benzo(a)pyrene (2.03 ppm), benzo(b)fluoranthene (2.07 ppm), benzo(k)fluoranthene (1.83 ppm), chrysene (2.43 ppm), and indeno(1,2,3-cd)pyrene (1.53 ppm) at concentrations that

exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-25 soil sample contained the compounds benzo(a)anthracene (1.47 ppm), benzo(a)pyrene (1.87 ppm), benzo(b)fluoranthene (2.0 ppm), benzo(k)fluoranthene (1.67 ppm), chrysene (2.2 ppm), and indeno(1,2,3-cd)pyrene (1.4 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-26 soil sample contained the compound chrysene (1.03 ppm) at a concentration that exceeds its PMC. The GP-30 soil sample contained chrysene (1.1 ppm) at a concentration that exceeds its PMC. The GP-31 soil sample contained the compounds benzo(a)pyrene (1.13 ppm), benzo(b)fluoranthene (1.07 ppm), benzo(k)fluoranthene (1.17 ppm), and chrysene (1.23 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)pyrene and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-32 soil sample contained the compounds benzo(a)anthracene (1.93 ppm), benzo(a)pyrene (2.3 ppm), benzo(b)fluoranthene (2.43 ppm), benzo(k)fluoranthene (1.83 ppm), chrysene (2.73 ppm), and indeno(1,2,3-cd)pyrene (1.6 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-33 soil sample contained the compounds benzo(a)anthracene (2.7 ppm), benzo(a)pyrene (2.73 ppm), benzo(b)fluoranthene (2.53 ppm), benzo(k)fluoranthene (2.33 ppm), chrysene (3.4 ppm), fluoranthene (7.33 ppm), indeno(1,2,3-cd)pyrene (1.8 ppm), phenanthrene (5.27 ppm), and pyrene (8.8 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-44 soil sample contained the compounds benzo(a)anthracene (1.9 ppm) and benzo(b)fluoranthene (2.2 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-55 soil sample contained the compounds benzo(a)anthracene (1.8 ppm), benzo(a)pyrene (2.11 ppm), benzo(b)fluoranthene (2.77 ppm), benzo(k)fluoranthene (1.63 ppm), chrysene (2.54 ppm), and indeno(1,2,3-cd)pyrene (1.42 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-57 soil sample contained the compounds benzo(a)anthracene (5.77 ppm), benzo(a)pyrene (6.88 ppm), benzo(b)fluoranthene (7.65 ppm), benzo(k)fluoranthene (5.37 ppm), chrysene (7.67 ppm), fluoranthene (12.0 ppm), indeno(1,2,3-cd)pyrene (4.65 ppm), phenanthrene (8.0 ppm), and pyrene (10.5 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-58 soil sample contained the compounds benzo(a)anthracene (1.83 ppm) and benzo(b)fluoranthene (2.75 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-67 soil sample contained the compounds benzo(a)anthracene (1.25 ppm), benzo(a)pyrene (1.66 ppm), benzo(b)fluoranthene (2.12 ppm), benzo(k)fluoranthene (2.19 ppm), and chrysene (1.57 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-71 soil sample contained the compound benzo(b)fluoranthene (1.19 ppm) at a concentration that exceeds its PMC and Residential DEC.

Total concentrations of the metals arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were detected in the soil samples throughout the project corridor. Total arsenic was detected at concentrations ranging from Not Detected (ND) to 29.5 ppm. Arsenic was detected at concentrations that exceed its Residential and Commercial/Industrial DEC of 10 ppm in the following soil samples: GP-19 (10.2 ppm), GP-28 (10.4 ppm), GP-34 (10.9 ppm), GP-44 (10.2), GP-46 (13.0 ppm), GP-48 (11.4 ppm), GP-50 (11.4 ppm), GP-52 (10.1 ppm), GP-54 (23.6 ppm), GP-55 (29.5 ppm), GP-59 (16.0 ppm), GP-62 (14.1 ppm), GP-63 (11.3 ppm), GP-64 (11.1 ppm), GP-65 (10.1 ppm), GP-68 (10.7 ppm), and GP-71 (10.4 ppm).

Total lead was detected in the GP-8 sample at a concentration of 2,500 ppm. This concentration exceeds the Residential and Commercial/Industrial DEC of 500 and 1,000 ppm, respectively. No other total metal concentration exceeded any applicable CTDEP RSRs.

Leachable barium, lead and mercury (via SPLP) were detected at varying concentrations throughout the project corridor. Leachable barium was detected at concentrations ranging from 0.07 to 1.16 ppm. Barium was detected at concentrations that exceed the PMC of 1.0 ppm in the following samples: GP-3 (1.04 ppm), GP-29 (1.07 ppm), GP-32 (1.16 ppm), and GP-43 (1.04 ppm).

Leachable lead was detected at concentrations ranging from ND to 0.29 ppm. Lead was detected at concentrations that exceed the PMC of 0.015 ppm in the following seventeen samples: GP-3 (0.02 ppm), GP-8 (0.16 ppm), GP-11 (0.06 ppm), GP-15 (0.08 ppm), GP-24 (0.02 ppm), GP-30 (0.02 ppm), GP-31 (0.04 ppm), GP-32 (0.29 ppm), GP-54 (0.02 ppm), GP-57 (0.12 ppm), GP-58 (0.03 ppm), GP-60 (0.02 ppm), GP-65 (0.02 ppm), GP-67 (0.02 ppm), GP-69 (0.02 ppm), GP-70 (0.02 ppm), and GP-71 (0.02 ppm).

5.3 Results of Groundwater Grab Sample Analyses

Groundwater grab samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the groundwater grab samples is presented in Table 2, which is located at the end of this report, and copies of the groundwater grab sample analytical results are included in Appendix C. The following summarizes the results of the analyses conducted on the groundwater grab samples.

The groundwater samples GP-12 and GP-32 did not contain detectable concentrations of petroleum hydrocarbons, VOCs, or PAHs. The GP-12 groundwater sample contained the metals barium (0.065 ppm), cadmium (0.0004 ppm), and chromium (0.016 ppm). In addition, the GP-32 groundwater sample contained the metals barium (0.121 ppm) and chromium (0.011 ppm). The concentrations of these metals do not exceed any applicable CTDEP RSRs.

5.4 Quality Assurance/Quality Control Samples

The six field blank (FB) and trip blank (TB) water samples were collected on each day of sampling activities. The field blank samples were analyzed for VOCs, TPH, PAHs, and total RCRA 8 metals. In addition, six trip blank samples were analyzed for VOCs. The VOC methylene chloride was detected in the samples FB-1 (30.3 ppb), FB-2 (30.9 ppb), FB-4 (10.7 ppb), FB-5 (12.1 ppb), FB-6 (12.1 ppb), TB-1 (15.8 ppb), and TB-2 (13.4 ppb). Methylene chloride was also detected in four of the soil samples analyzed as part of this investigation. Substances containing methylene chloride are not used in association with the field equipment decontamination procedures, and therefore its presence in the soil and blank samples is likely due to laboratory contamination. Methylene chloride is used in the laboratory as a cleaning solvent, as well as in the extraction processes of certain analyses.

In addition, the metal barium was detected at an extremely low concentration of 0.0005 ppm in the FB-4 field blank sample. The presence of the small barium concentration may be due to field contamination or it may have been present in the laboratory-supplied water. No other contaminants were detected above the laboratory detection limits in any of the blank samples.

Copies of the analytical reports associated with the quality assurance/quality control samples are included in Appendix D.

6.0 <u>DISCUSSION OF AFFECTED RESOURCES</u>

6.1 Areas of Environmental Concern

Based upon the results of laboratory analyses performed on soil samples for this Task 210 investigation, twelve areas of environmental concern (AOEC) have been identified. The location of the areas within the project corridor is discussed in the following section.

AOEC #1: Boring GP-3: 125 Boston Post Road

Analytical results from the soil sample collected from boring GP-3 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC and Residential DEC. In addition, leachable barium and lead were also detected at slightly elevated concentrations that exceed the GA PMC.

AOEC #2: Borings GP-8 & GP-9: 163 & 175 Boston Post Road

Analytical results from the soil sample collected from boring GP-8 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. Total lead concentration that exceeds that Residential detected at an elevated was Commercial/Industrial DEC. In addition, leachable lead was also detected at a slightly elevated concentration that exceeds the GA PMC. Analytical results from the soil sample collected from boring GP-9 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #3: Borings GP-11 & GP-15: 181 - 185 Boston Post Road

Analytical results from the soil samples collected from borings GP-11 and GP-15 indicate the presence of leachable lead at elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC. In addition, the GP-15 soil sample indicated the presence of semi-volatile organic compound (PAH) contamination in shallow soil ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #4: Boring GP-19: 213-217 Boston Post Road

Analytical results from the soil sample collected from boring GP-19 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #5: Boring GP-20: 221-223 Boston Post Road

Analytical results from the soil sample collected from boring GP-20 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #6: Borings GP-24, GP-25 & GP-26: 262-275 Boston Post Road

Analytical results from the soil samples collected from borings GP-24, GP-25, and GP-26 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, the soil sample from GP-25 also contained leachable lead at a slightly elevated concentration that exceeds the GA PMC.

AOEC #7: Borings GP-28, GP-29, GP-30 & GP-31: 293 to 305 Boston Post Road

Analytical results from the soil sample collected from boring GP-28 indicate the presence of total arsenic contamination at a slightly elevated concentration in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

Analytical results from the soil sample collected from boring GP-29 indicate the presence leachable barium contamination at a slightly elevated concentration in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC.

Analytical results from the soil samples collected from borings GP-30 and GP-31 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, leachable lead was detected in the GP-30 and GP-31 soil samples at slightly elevated concentrations that exceed the GA PMC.

AOEC #8: Borings GP-32, GP-33, & GP-34: 312 to 316 Boston Post Road

Analytical results from the soil samples collected from borings GP-32 and GP-33 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, leachable lead and barium were detected in the GP-32 soil samples at slightly elevated concentrations that exceed the GA PMC.

The 0.6 to 1.2 meter (2 to 4 feet) sample from boring GP-34 also contained total arsenic contamination at a slightly elevated concentration. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #9: Borings GP-40, GP-43, & GP-44: 262 to 282 Boston Post Road

Analytical results from the soil sample collected from boring GP-40 indicate the presence of petroleum hydrocarbon contamination at an elevated concentration in soil ranging from 1.2 to 2.4 meter (4 to 8 feet) below grade. The 0.6 to 1.2 meter (2 to 4 feet) sample from boring GP-43 also contained leachable barium contamination at a slightly elevated concentration that exceeds the GA PMC. The soil sample from boring GP-44 contained semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential DEC. In addition, total arsenic was detected in the GP-44 soil sample at a slightly elevated concentration that exceeds the Residential and Commercial/Industrial DEC.

AOEC #10: Borings GP-46 & 48: 248 Boston Post Road

Analytical results from the soil samples collected from borings GP-46 and GP-48 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #11: Boring GP-50: 222 Boston Post Road

Analytical results from the soil sample collected from boring GP-50 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #12: Boring GP-52, GP-54, GP-55, GP-57, GP-58, GP-59, GP-60, GP-62, GP-63, GP-64, GP-65, GP-67, GP-68, GP-69, GP-70 & GP-71: 116 to 200 Boston Post Road

Analytical results from the soil samples collected from borings GP-54, GP-62, GP-64, and GP-71 indicate the presence of total arsenic at elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The 0.6 to 1.2 meter (2 to 4 feet) samples from borings GP-55, GP-63, GP-65, and GP-68 also contained elevated concentrations of total arsenic. In addition, the GP-52 1.2 to 1.8 meter (4 to 6 feet) and the GP-59 1.2 to 2.1 meter (4 to 7 feet) sample contained elevated concentrations of total arsenic. The total arsenic contamination detected in these ten samples exceeds the Residential and Commercial/Industrial DEC.

Leachable lead was detected at elevated concentrations in the 0 to 0.6 meter (0' to 2 feet) samples from borings GP-54, GP-57, GP-60, GP-69, and GP-71. In addition, leachable lead was detected at elevated concentrations in the 0.6 to 1.2 meter (2 to 4 feet) sample from borings GP-58, GP-65, GP-67, and GP-70. The leachable lead contamination detected in these nine samples exceeds the GA PMC.

Semi-volatile organic compound (PAH) contamination was detected at elevated concentrations in the 0 to 0.6 meter (0 to 2 feet) sample from borings GP-57 and GP-71, as well as the 0.6 to 1.2 meter (2 to 4 feet) sample from borings GP-55 and GP-67. The PAH contamination detected in these four sample exceeds the GA PMC, and the Residential and Commercial/Industrial DEC.

The VOC methylene chloride was detected in the GP-62 0 to 0.6 meter (0 to 2 feet) sample at a concentration that slightly exceeds the GA PMC. The presence of the methylene chloride may be due to laboratory contamination.

In addition, total petroleum hydrocarbons were detected in the GP-71 0 to 0.6 meter (0 to 2 feet) sample at a concentration that exceeds the GA PMC and Residential DEC.

7.0 RECOMMENDATIONS

The results of the Task 210 – Surficial Site Investigation for the Reconstruction of Route 1 from East of Lambert Road to Dogburn Lane in Orange, Connecticut indicate the presence of semi-volatile (PAH), total arsenic and lead, leachable barium and lead, VOC and TPH contamination in soils throughout the project corridor ranging from 0 to 2.4 meters (0 to 8 feet) below grade, at concentrations that slightly to moderately exceed the applicable RSR criteria. Twelve Areas of Environmental Concern (AOEC) have been identified within the project corridor. Special considerations for treatment/disposal and worker health and safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. A Task 310 Remedial Management Plan is therefore recommended for all areas of construction associated with the Reconstruction of Route 1 from East of Lambert Road to Dogburn Lane project.

8.0 <u>LIMITATIONS</u>

All work product and reports provided by Maguire Group Inc. (MGI) in connection with the performance of this Task 210 - Surficial Site Investigation are subject to the following limitations:

- 1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to ConnDOT.
- 2. In preparing this report, MGI has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to MGI at the time of this investigation. To the extent that such files are missing, incomplete or not provided to MGI, MGI is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, MGI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.
- 3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.
- 4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors.

Should additional data become available in the future, these data should be reviewed by MGI, and the conclusions and recommendations presented herein modified accordingly.

- 5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, MGI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these tests.
- 6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by MGI and the conclusions and recommendations presented herein modified accordingly.
- 7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this exploratory site investigation which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.

The information contained herein was prepared for the use of ConnDOT solely in conjunction with the task descriptions for this assignment. The conclusions and recommendations set forth in this report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

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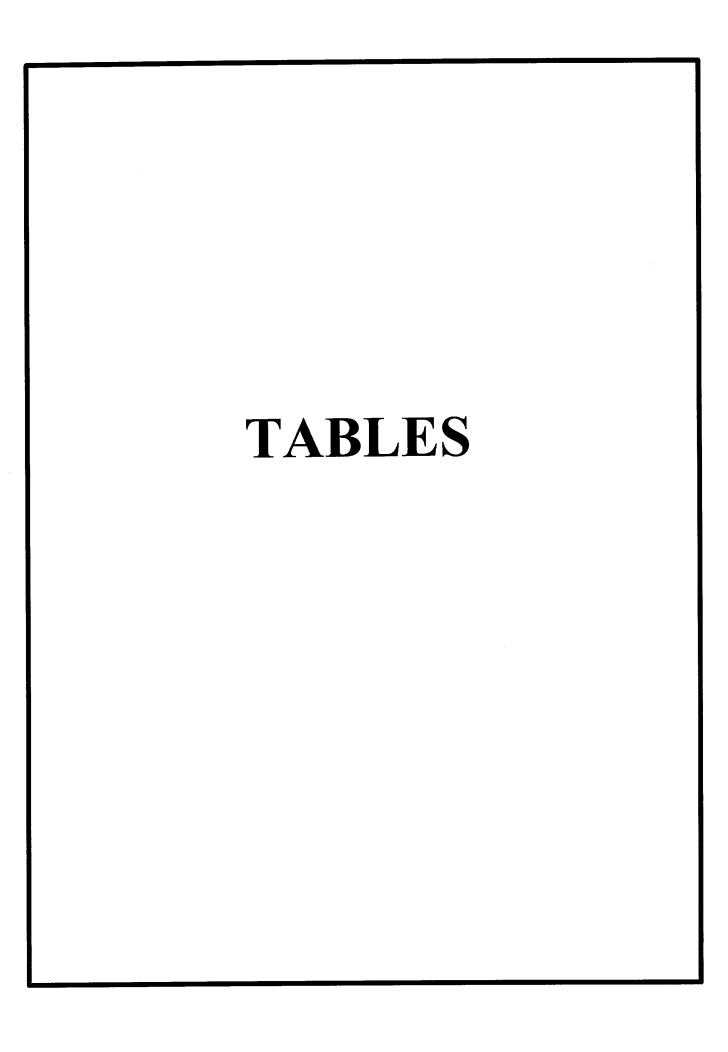


TABLE 1(a) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-1 1,2-1.8m 4'-6'	GP-2 0.6-1.2m 2'-4'	GP-3 0-0.6m 0'-2'	GP-4 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	296	78.8	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	0.53	BDL	BDL	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	0.47	2.33	BDL	1 ppm	1/7.8 ppm
Chrysene	ND	0.7	BDL	BDL	1 ppm	84/780 ppm
Fluoranthene	ND	1.17	2.0	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	0.33	2.17	BDL	1 ppm	1/7.8 ppm
Phenanthrene	ND	0.73	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	ND	3.93	6.5	ND		
Total RCRA 8 Metals - ppm					5,00° 0.340	4 700 (440 000
Barium	20.2	35.9	44.5	44.6		4,700/140,000 ppm
Cadmium	0.14	0.36	0.55	0.16		34/1,000 ppm
Chromium	24.2	21.1	20.0	21.6		100/100 ppm 500/1,000 ppm
Lead	4.46	14.4	178	28.3		20/610 ppm
Mercury	ND	0.021	0.119	0.06		20/010 ppm
SPLP RCRA 8 Metals - ppm				0.07	,	
Barium	0.11	0.85	1.04	0.87	1 ppm	
Lead	ND	ND	0.02	ND	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(b) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring LD:	GP-5	GP-6	GP-7	GP-8	CTDEP Pollutant	CTDEP Direct Exposure Criter
Sample Depth:	0-0.6m 0'-2'	0-0.6m 0'-2'	0.6-1.2m 2'-4'	0.6-1.2m 2'-4'	Mobility Criteria – GA Groundwater Area	Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	202	21.1	BDL	51.7	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND	A DATE OF THE STATE OF THE STAT	
PAHs - EPA Method 8270 (ppm)						
Anthracene	BDL	ND	ND	0.35	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.63	ND	ND	1.48	1 ppm	1/7.8 ppm
Benzo(a)pyrene	0.79	BDL	ND	1.62	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.76	ND	ND	2.21	1 ppm	1/7,8 ppm
Benzo(g,h,i)perylene	BDL	ND	ND	1.2	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.77	ND	ND	0.93	1 ppm	8.4/78 ppm
Chrysene	0.85	ND	BDL	1.83	1 ppm	84/780 ppm
Fluoranthene	1.35	BDL	BDL	2.7	5.6	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.47	ND	ND	1.27	1 ppm	1/7.8 ppm
Phenanthrene	0.82	ND	ND	1.57	4 ppm	1,000/2,500 ppm
Pyrene	1.21	BDL	BDL	2.67	4 ppm	1,000/2,500 ppm
Total PAHs	7.65	ND	ND	17.83		
Total RCRA 8 Metals - ppm						10/10
Arsenic	ND	ND	ND	8.58		10/10 ppm
Barium	43.1	26.5	28.3	315		4,700/140,000 ppm 34/1,000 ppm
Cadmium	0.22	0.16	0.15	7.36 17.7		100/100 ppm
Chromium	23.5	19.1	22.9 16.0	2,500		500/1,000 ppm
Lead	42.3	22.8	0.024	0.817		20/610 ppm
Mercury	0.046 BDL	0.011 ND	5.72	7.9		340/10,000 ppm
Selenium Silver	ND	ND ND	ND ND	0.75		340/10,000 ppm
	1110	1110	1			
SPLP RCRA 8 Metals - ppm Barium	0.67	0.81	0.91	0.66	1 ppm	
Barium Lead	ND	ND	ND	0.16	0.015 ppm	
Mercury	ND	ND	ND	0.00016	0.002 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(c) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-9 0-0.6m	GP-10 0-0.6m	GP-11 0-0.6m	GP-12 0.6-1.2m	CTDEP Pollutant Mobility Criteria – GA	CTDEP Direct Exposure Criter Residential/ Commercial &
	0'-2'	0'-2'	0'-2'	2'-4'	Groundwater Area	Industrial
TPH - EPA Method 418.1 (ppm)	24.0	BDL	38.3	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	1.06	ND	BDL	ND	1 ppm	1/7.8 ppm
Benzo(a)pyrene	1.16	ND	BDL	ND	1 ppm	1/1 ppm
Benzo(b)fluoranthene	1.51	ND	0.92	ND	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	0.79	ND	BDL	ND	1 ppm	8.4/78 ppm
Chrysene	1.12	ND	BDL	ND	1 ppm	84/780 ppm
Fluoranthene	1.67	ND	1.24	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.53	ND	ND	ND	1 ppm	1/7.8 ppm
Phenanthrene	0.48	ND	BDL	ND	4 ppm	1,000/2,500 ppm
Pyrene	1.82	ND	BDL	ND	4 ppm	1,000/2,500 ppm
Total PAHs	10.14	ND	2.16	ND		
Total RCRA 8 Metals – ppm						
Arsenic	ND	ND	5.58	ND		10/10 ppm
Barium	15.5	44.0	44.5	34.3		4,700/140,000 ppm
Cadmium	ND	ND	0.32	0.2		34/1,000 ppm
Chromium	16.7	18.4	16.8	21.7		100/100 ppm
Lead	4.38	7.92	71.6	8.97		500/1,000 ppm
Mercury	0.01	0.031	0.063	0.04		20/610 ppm
Selenium	ND	6.39	ND	5.7		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.83	0.12	0.31	0.09	1 ppm	
Lead	ND	ND	0.06	ND	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(d) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-13 0.6-1.2m 2'-4'	GP-14 1.2-2.4m 4'-8'	GP-15 0-0.6m 0'-2'	GP-16 1.2-2.1m 4'-7'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	21.4	134	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND	And the second s	
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	0.67	ND	8.4 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	ND	2.53	ND	1 ppm	1/7.8 ppm
Benzo(a)pyrene	ND	ND	2.87	ND	1 ppm	1/1 ppm
Benzo(b)fluoranthene	ND	ND	5.27	ND	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	ND	ND	3.47	ND	1 ppm	8.4/78 ppm
Chrysene	ND	ND	3.4	ND	1 ppm	84/780 ppm
Fluoranthene	ND	ND	5.6	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	1.47	ND	1 ppm	1/7.8 ppm
Phenanthrene	ND	ND	3.07	ND	4 ppm	1,000/2,500 ppm
Pyrene	ND	ND	6.33	ND	4 ppm	1,000/2,500 ppm
Total PAHs	ND	ND	34.68	ND		
Total RCRA 8 Metals – ppm						
Arsenic	ND	ND	9.07	BDL 4.86		10/10 ppm 4,700/140,000 ppm
Barium	43.8	12.2 0.06	25.3 0.14	0.04		34/1,000 ppm
Cadmium	0.2	21.5	15.7	10.8		100/100 ppm
Chromium	8.09	6.18	13.7	2.96		500/1,000 ppm
Lead	0.029	ND	0.037	0.025		20/610 ppm
Mercury Selenium	10.1	BDL	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm	10.1					
Barium	0.1	0.3	0.49	0.26	1 ppm	
Lead	ND	ND	0.08	ND	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(e) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-17 0.6-1.2m 2'-4'	GP-18 1.2-2m 4'-6.5'	GP-19 0.6-1.2m 2'-4'	GP-20 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	BDL	61.5	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	BDL	ND	ND	1.63	1 ppm	1/7.8 ppm
Benzo(a)pyrene	BDL	ND	ND	2.0	1 ppm	1/1 ppm
Benzo(b)fluoranthene	BDL	ND	ND	2.07	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	ND	1.93	1 ppm	8.4/78 ppm
Chrysene	BDL	ND	ND	2.47	1 ppm	84/780 ppm
Fluoranthene	0.43	ND	ND	3.6	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	ND	1.67	1 ppm	1/7.8 ppm
Phenanthrene	BDL	ND	ND	1.67	4 ppm	1,000/2,500 ppm
Pyrene	BDL	ND	ND	3.47	4 ppm	1,000/2,500 ppm
Total PAHs	0.43	ND	ND	20.51	Harris Andrews	
Total RCRA 8 Metals - ppm						
Arsenic	6.9	5.56	10.2	6.81		10/10 ppm
Barium	25.9	28.6	17.2	38.5		4,700/140,000 ppm
Cadmium	0.07	ND	0.08	0.34		34/1,000 ppm 100/100 ppm
Chromium	17.6	13.1	18.2	18.5		500/1,000 ppm
Lead	31.5	6.42	7.6	171 0.07		20/610 ppm
Mercury	0.055	0.013	0.021	0.07		20/010 ppm
SPLP RCRA 8 Metals - ppm Barium	0.63	0.32	0.55	0.35	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(f) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-21 0.6-1.2m 2'-4'	GP-22 0-0.6m 0'-2'	GP-23 1.2-2.4m 4'-8'	GP-24 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	32.5	329	26.0	66.5	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	BDL	ND	ND	0.43	8.4 ppm	1,000/2,500 ppm
Anthracene	0.64	BDL	ND	0.43	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.53	BDL	ND	1.7	1 ppm	1/7.8 ppm
Benzo(a)pyrene	BDL	BDL	ND	2.03	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.72	BDL	ND	2.07	1 ppm	1/7.8 ppm
Benzo(g,h,i)perylene	BDL	ND	ND	1.43	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.73	BDL	ND	1.83	1 ppm	8.4/78 ppm
Chrysene	0.79	BDL	ND	2.43	1 ppm	84/780 ppm
Fluoranthene	1.39	1.29	BDL	4.2	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	BDL	ND	ND	1.53	1 ppm	1/7.8 ppm
Phenanthrene	0.75	0.74	ND	1.93	4 ppm	1,000/2,500 ppm
Pyrene	1.32	BDL	BDL	3.37	4 ppm	1,000/2,500 ppm
Total PAHs	6.87	2.03	ND	23.38		
Total RCRA 8 Metals - ppm						
Barium	40.6	26.0	42.5	17.3		4,700/140,000 ppm
Cadmium	0.19	0.14	0.06	0.2		34/1,000 ppm
Chromium	25.2	22.3	20.2	11.0		100/100 ppm
Lead	17.1	13.8	15.4	50.4		500/1,000 ppm
Mercury	0.013	0.017	0.029	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.07	0.09	0.07	0.31	1 ppm	
Lead	ND	ND	ND	0.02	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(g) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-25 0-0.6m 0'-2'	GP-26 0.6-1.2m 2'-4'	GP-27 1.2-2.4m 4'-8'	GP-28 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	72.7	25.6	BDL	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)					25. 	
Benzo(a)anthracene	1.47	0.77	ND	ND	1 ppm	1/7.8 ppm
Benzo(a)pyrene	1.87	0.87	ND	BDL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	2.0	0.93	ND	ND	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	1.67	0.9	ND	BDL	1 ppm	8.4/78 ppm
Chrysene	2.2	1.03	ND	BDL	1 ppm	84/780 ppm
Fluoranthene	3.47	1.5	ND	BDL	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	1.4	0.63	ND	ND	1 ppm	1/7.8 ppm
Phenanthrene	1.33	0.37	ND	BDL	4 ppm	1,000/2,500 ppm
Pyrene	3.07	1.27	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	18.48	8.27	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	7.63	7.9	BDL	10.4		10/10 ppm
Barium	25.6	41.0	31.0	19.6		4,700/140,000 ppm
Cadmium	0.21	0.12	0.17	ND 16.5		34/1,000 ppm
Chromium	12.5	16.8	17.4	16.5		100/100 ppm
Lead	54.4	19.1	7.43	10.3		500/1,000 ppm 20/610 ppm
Mercury	0.021	0.039	0.019	0.033		340/10,000 ppm
Selenium	ND	BDL	ND	6.34		540/10,000 ppm
SPLP RCRA 8 Metals - ppm		0.45	0.56		4	
Barium	0.31	0.47	0.56	0.9	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(h) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-29 0-0.6m 0'-2'	GP-30 0.6-1.2m 2'-4'	GP-31 0.6-1.2m 2'-4'	GP-32 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	44.6	53.8	40.5	30.3	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND	i Tribilation	
PAHs - EPA Method 8270 (ppm)					11-4-7 (1) 11-4-7 (1)	
Acenaphthylene	ND	ND	ND	0.8	8.4 ppm	1,000/2,500 ppm
Anthracene	ND	ND	BDL	0.57	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.53	0.7	0.83	1.93	1 ppm	1/7.8 ppm
Benzo(a)pyrene	0.7	0.93	1.13	2.3	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.87	1.0	1.07	2.43	1 ppm	1/7.8 ppm
Benzo(g,h,i)perylene	BDL	BDL	BDL	1.47	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.7	0.87	1.17	1.83	1 ppm	8.4/78 ppm
Chrysene	0.87	1.1	1.23	2.73	1 ppm	84/780 ppm
Fluoranthene	1.33	1.83	2.1	4.5	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.5	0.7	0.87	1.6	1 ppm	1/7.8 ppm
Phenanthrene	0.57	0.73	0.8	2.5	4 ppm	1,000/2,500 ppm
Pyrene	1.37	1.4	1.87	3.97	4 ppm	1,000/2,500 ppm
Total PAHs	7.44	9.26	11.07	26.63		
Total RCRA 8 Metals - ppm						
Arsenic	6.09	6.98	6.6	7.21		10/10 ppm
Barium	40.3	35.7	35.1	32.4		4,700/140,000 ppm
Cadmium	0.54	0.38	0.38	0.1		34/1,000 ppm
Chromium	12.4	13.0	13.8	32.0 21.2		100/100 ppm
Lead	54.7	71.6 0.045	75.0 0.059	0.136		500/1,000 ppm 20/610 ppm
Mercury	0.036 ND	0.045 ND	5.73	BDL		340/10,000 ppm
Selenium	I ND	עע	3.73	DDL		240/103000 ppill
SPLP RCRA 8 Metals - ppm	1.07	0.81	0.59	1.16	1 ppm	
Barium Lead	BDL	0.81	0.39	0.29	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(i) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-33 0.6-1.2m 2'-4'	GP-34 0.6-1.2m 2'-4'	GP-35 0-0.6m 0'-2'	GP-36 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	53.2	83.4	25.2	194	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND	Paki. _{Print}	
PAHs - EPA Method 8270 (ppm)					The second	
Acenaphthylene	1.0	ND	ND	ND	8.4 ppm	1,000/2,500 ppm
Anthracene	1.27	ND	ND	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	2.7	ND	ND	ND	1 ppm	1/7.8 ppm
Benzo(a)pyrene	2.73	ND	ND	BDL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	2.53	ND	ND	BDL	1 ppm	1/7.8 ppm
Benzo(g,h,i)perylene	1.77	ND	ND	ND	4,2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	2.33	ND	ND	BDL		8.4/78 ppm
Chrysene	3.4	ND	ND	BDL	1 ppm	84/780 ppm
Fluoranthene	7.33	ND	ND	BDL	5.6 ppm	1,000/2,500 ppm
Fluorene	0.6	ND	ND	ND	5,6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	1.8	ND	ND	ND	1 ppm	1/7.8 ppm
Phenanthrene	5.27	ND	ND	ND	4 ppm	1,000/2,500 ppm
Pyrene	8.8	ND	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	41.53	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	5.88	10.9	BDL	7.75		10/10 ppm
Barium	20.6	9.14	12.0	19.3		4,700/140,000 ppm
Cadmium	0.12	ND 17.6	ND 8.38	0.06 14.8		34/1,000 ppm 100/100 ppm
Chromium	20.4	7.23	5.12	18.1		500/1,000 ppm
Lead	ND	7.23 ND	ND	0.01		20/610 ppm
Mercury CDL P D CD A 2 Matela mana	ND	עאו	MD	0.01		ZOLOTO PPIII
SPLP RCRA 8 Metals - ppm Barium	0.55	0.19	0.24	0.36	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(j) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring 1.D.: Sample Depth:	GP-37 0.6-1.2m 2'-4'	GP-38 0-0.6m 0'-2'	GP-39 0.6-1.2m 2'-4'	GP-40 1.2-2.4m 4'-8'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	29.1	BDL	647	500 ppm	500 /2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	7.49	9.1	12.7	8.8		10/10 ppm
Barium	17.1	22.9	31.1	18.4		4,700/140,000 ppm
Cadmium	ND	0.06	ND	0.06		34/1,000 ppm
Chromium	11.7	18.1	14.2	16.3		100/100 ppm
Lead	3.42	29.4	6.68	14.5		500/1,000 ppm
Mercury	ND	0.045	ND	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.2	0.15	0.54	0.13	1 ppm	

TABLE 1(k) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-41 0-0.6m 0'-2'	GP-42 0.6-1,2m 2'-4'	GP-43 0.6-1.2m 2'-4'	GP-44 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	192	BDL	23.6	132	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	ND	ND	1.9	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	ND	ND	2.2	1 ppm	1/7.8 ppm
Fluoranthene	ND	ND	ND	4.87	5,6 ppm	1,000/2,500 ppm
Phenanthrene	ND	ND	ND	2.87	4 ppm	1,000/2,500 ppm
Total PAHs	ND	ND	ND	11.84		
Total RCRA 8 Metals - ppm						
Arsenic	9.64	7.6	8.68	10.2		10/10 ppm
Barium	12.0	15.6	26.1	26.9		4,700/140,000 ppm
Cadmium	0.08	0.09	ND	0.04		34/1,000 ppm
Chromium	24.7	13.0	14.5	14.9		100/100 ppm
Lead	7.44	5.73	15.2	28.6		500/1,000 ppm
Mercury	0.011	ND	0.029	0.034		20/610 ppm
Selenium	ND	ND	6.26	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.15	0.26	1.04	0.58	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(1) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-45 0,6-1.2m 2'-4'	GP-46 0-0.6m 0'-2'	GP-47 0.6-1.2m 2'-4'	GP-48 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	87.2	185	56.0	63.6	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND*	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	BDL	BDL	0.36	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	0.33	0.39	0.48	1 ppm	1/7.8 ppm
Fluoranthene	ND	0.47	0.55	0.7	5.6 ppm	1,000/2,500 ppm
Total PAHs	ND	0.8	0.94	1.54		
Total RCRA 8 Metals - ppm	-					
Arsenic	7.78	<i>13.0</i>	8.26	11.4		10/10 ppm
Barium	21.5	41.7	24.9	37.3		4,700/140,000 ppm
Cadmium	ND	0.1	0.1	0.16		34/1,000 ppm
Chromium	24.6	15.6	19.9	14.9		100/100 ppm
Lead	10.6	68.0	54.4	57.6		500/1,000 ppm
Mercury	0.015	0.085	0.022	0.054		20/610 ppm
Selenium	ND	5.98	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.24	0.16	0.22	0.62	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(m) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-49 0.6-1.2m 2'-4'	GP-50 0-0.6m 0'-2'	GP-51 0.6-1.2m 2'-4'	GP-52 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	145	81.4	25.4	35.3	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	ND	ND	78	100 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	ND	11.4	5.99	10.1		10/10 ppm
Barium	13.6	23.0	10.8	16.4		4,700/140,000 ppm
Cadmium	ND	ND	ND	ND		34/1,000 ppm
Chromium	15.1	8.43	13.7	17.0		100/100 ppm
Lead	4.74	17.4	3.22	6.2		500/1,000 ppm
Mercury	ND	0.012	BDL	0.015		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.16	0.25	0.15	0.09	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(n) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-53 0-0.6m 0'-2'	GP-54 0-0.6m 0'-2'	GP-55 0.6-1.2m 2'-4'	GP-56 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	242	46.2	39.8	36.4	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*	ND*	30.00 33.00 (1885)	
PAHs - EPA Method 8270 (ppm)						
Anthracene	ND	0.53	0.34	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	0.67	1.8	0.46	1 ppm	1/7.8 ppm
Benzo(a)pyrene	ND	0.73	2.11	BDL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	BDL	1.0	2.77	0.56	1 ppm	1/7.8 ppm
Benzo(g,h,i)perylene	ND	BDL	1.31	BDL	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	ND	BDL	1.63	BDL	1 ppm	8.4/78 ppm
Chrysene	ND	0.84	2.54	BDL	1 ppm	84/780 ppm
Fluoranthene	BDL	1.43	3.73	1.06	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	BDL	1.42	0.35	1 ppm	1/7.8 ppm
Phenanthrene	ND	0.61	1.87	0.45	4 ppm	1,000/2,500 ppm
Pyrene	BDL	1.33	3.07	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	ND	7.14	22.59	2.88		
Total RCRA 8 Metals - ppm						20/6
Arsenic	9.98	23.6	29.5	8.26		10/10 ppm 4,700/140,000 ppm
Barium	25.5	28.1	28.4	22.0 0.06		34/1,000 ppm
Cadmium	ND	ND 10.00	0.04	22.1		34/1,000 ppm 100/100 ppm
Chromium	14.8	19.09	17.9	16.5		500/1,000 ppm
Lead	19.5	78.0	125	0.01		20/610 ppm
Mercury	0.027	0.04	0.064	0.01		20/010 ppin
SPLP RCRA 8 Metals - ppm	0.00	0.00	0.42	0.13	1 sam	
Barium	0.28	0.23	0.42	0.12 ND	1 ppm	
Lead	ND	0.02	BDL	ND	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

^{*} Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(0) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-57 0-0.6m 0'-2'	GP-58 0.6-1.2m 2'-4'	GP-59 1.2-2.1m 4'-7'	GP-60 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	164	133	BDL	36.0	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*	ND*		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	2.95	ND	ND	ND	8.4 ppm	1,000/2,500 ppm
Anthracene	1.68	ND	ND	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	5.77	1.83	ND	ND	1 ppm	1/7.8 ppm
Benzo(a)pyrene	6.88	BDL	ND	BDL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	7.65	2.75	ND	BDL	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	5.37	BDL	ND	BDL	1 ppm	8.4/78 ppm
Chrysene	7.67	BDL	ND	NDL	1 ppm	84/780 ppm
Fluoranthene	12.0	4.05	ND	0.37	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	4.65	1.7	ND	BDL	1 ppm	1/7.8 ppm
Phenanthrene	8.0	2.2	ND	ND	4 ppm	1,000/2,500 ppm
Pyrene	10.5	BDL	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	73.12	12.53	ND	0.37		
Total RCRA 8 Metals - ppm				0.00		
Arsenic	BDL	8.88	16.0	9.02		10/10 ppm 4,700/140,000 ppm
Barium	37.8	37.4	47.8	27.8		4,700/140,000 ppm 34/1,000 ppm
Cadmium	0.46	0.74	ND	0.06 17.1		100/100 ppm
Chromium	15.4	14.7	23.4 11.1	37.9		500/1,000 ppm
Lead	242	158 0.071	0.09	0.02		20/610 ppm
Mercury	0.061	0.071	0.09	0.02		ZY, OTO PPHI
SPLP RCRA 8 Metals - ppm	0.62	0.10	0.26	0.25	1 ppm	
Barium	0.63 0.12	0.18 0.03	0.26 ND	0.23	0.015 ppm	
Lead	0.12	0.03	ND	0.02	Avas Man	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

^{*} Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(p) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.:	GP-61	GP-62	GP-63	GP-64	CTDEP Pollutant	CTDEP Direct Exposure Criteria
Sample Depth:	0.6-1.2m 2'-4'	0-0.6m 0'-2'	0.6-1.2m 2'-4'	0-0.6m 0'-2'	Mobility Criteria – GA Groundwater Area	Residential/ Commercial & Industrial
	BDL	37.4	BDL	30.7	500 ppm	500/2,500 ppm
TPH - EPA Method 418.1 (ppm)	BDL	37.4	BDL	30.7	эоо руш	200/2,300 PP.III
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	88*	111*	85*	ND*	100 ppm	82,000/760,000 ppm
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	9.86	14.1	11.3	11.1		10/10 ppm
Barium	19.4	24.2	19.1	39.6		4,700/140,000 ppm
Cadmium	ND	0.1	ND	0.08		34/1,000 ppm
Chromium	23.6	13.6	31.5	18.1		100/100 ppm
Lead	8.98	52.9	6.83	25.9		500/1,000 ppm
Mercury	ND	0.022	ND	0.058		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.25	0.48	0.29	0.56	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(q) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

	2'-4'	0-0.6m 0'-2'	0.6-1.2m 2'-4'	GP-68 0.6-1.2m 2'-4'	Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	101	336	55.8	144	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb) sec-Butylbenzene	14*	ND*	ND*	ND*	1,400 ppb	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	0.44	ND	1.25	0.45	1 ppm	1/7.8 ppm
Benzo(a)pyrene	BDL	ND	1.66	BDL	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.62	ND	2.12	0.8	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	2.19	BDL	1 ppm	8.4/78 ppm
Chrysene	BDL	ND	1.57	BDL	1 ppm	84/780 ppm
Fluoranthene	1.24	ND	2.01	0.73	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.33	ND	ND	BDL	1 ppm	1/7.8 ppm
Phenanthrene	1.1	ND	1.14	0.35	4 ppm	1,000/2,500 ppm
Pyrene	1.03	BDL	3.62	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	4.76	ND	15.56	2.33		
Total RCRA 8 Metals - ppm			-			
Arsenic	10.1	7.74	7.26	10.7 28.4		10/10 ppm 4,700/140,000 ppm
Barium	37.4	33.2	20.5	0.12		34/1,000 ppm
Cadmium	0.1	0.16	0.21 12.6	10.12		100/100 ppm
Chromium	20.6 42.3	11.1 50.3	82.6	49.9		500/1,000 ppm
Lead	0.021	0.033	0.031	0.03		20/610 ppm
Mercury	0.021	0.055	0.031	0.03		AMM * X PP
SPLP RCRA 8 Metals - ppm	0.72	0.35	0.78	0.23	1 ppm	
Barium Lead	0.72	0.33 ND	0.78	ND ND	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

^{*} Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(r) - Results of Geoprobe Boring Soil Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Boring I.D.: Sample Depth:	GP-69 0-0.6m 0'-2'	GP-70 0.6-1.2m 2'-4'	GP-71 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	458	109	520	500 ppm	500 /2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*		
PAHs - EPA Method 8270 (ppm)					
Benzo(a)anthracene	BDL	0.34	0.57	1 ppm	1/7.8 ppm
Benzo(a)pyrene	BDL	BDL	0.76	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.91	0.72	1.19	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	BDL	BDL	0.77	1 ppm	8.4/78 ppm
Fluoranthene	0.73	0.65	0.96	5.6 ppm	1,000/2,500 ppm
Phenanthrene	ND	BDL	0.46	4 ppm	1,000/2,500 ppm
Pyrene	BDL	BDL	1.54	4 ppm	1,000/2,500 ppm
Total PAHs	1.64	1.71	6.25		
Total RCRA 8 Metals - ppm					
Arsenic	6.31	8.06	10.4		10/10 ppm
Barium	46.5	28.0	30.3		4,700/140,000 ppm
Cadmium	0.26	0.11	0.09		34/1,000 ppm
Chromium	13.0	21.1	12.5		100/100 ppm
Lead	96.6	125	99.0		500/1,000 ppm
Mercury	0.074	0.02	0.018		20/610 ppm
SPLP RCRA 8 Metals - ppm					
Barium	0.26	0.62	0.93	1 ppm	
Lead	0.02	0.02	0.02	0.015 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

^{*} Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 2 - Results of Groundwater Grab Sample Analyses Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane Orange, CT

Sample I.D.:	GP-12	GP-32	CTDEP Groundwater Protection Criteria	CTDEP Surface Water Protection Criteria	CTDEP Volatilization Criteria Residential/Commercial & Industrial
TPH – EPA Method 418.1 (ppm)	BDL	BDL	0.5	None Established	Not Applicable
VOCs – EPA Method 8260 (ppb	ND	ND		The second secon	
PAHs – EPA Method 8270 (ppm)	ND	ND		The state of the s	
Total RCRA 8 Metals - ppm				· 注题2	Not Applicable
Barium	0.065	0.121	1.0	None Established	
Cadmium	0.0004	ND	0.005	0.006 ppm	
Chromium	0.016	0.011	0.05	0.11 ppm	

ND - Not Detected

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

APPENDIX A Boring Logs

Date	Starte	^{d:} 10/28/99	Logical Environmental Soluti	ons	Boring No.: GP-1
Date	Finish	ed: 10/28/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements		Inspector: Cindy Knight
De m	pth ft	Descriptio			Comments
				Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			F	PID = 0 ppm
	-	Brown Sil	LT, little fine Gravel & Cobble, trace fine Sand & Clay		
0.6	2'-			Moore C	ro Samplo 0.6. 1.2m /2! 4!\\
0.9	3'-				re Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4' -				
1.5	5'-	Brown SII	LT, little fine Gravel & Cobble, trace fine Sand & Clay		re Sample 1.2 - 1.8m (4' - 6'):
1.8	6'				PID = 0.3 ppm
1.0	6'-				
2.1	7'-				
2.4	8' —	Refusal a	at 1.8 m (6') on Bluish-Green Phyllite		
2.74	9' —				
3	10-				
3.4	11'-				
3.7	12				
4	13'-				
4.3	14'-				
4.6	15'-				
4.9	16'—				
m Soi	l Desc	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-	-35%	And = 35-50%

Date	Start	ed: 10/28/99	Logical Environmental Solu	tions	Boring No.: GP-2	
Date	Finis	hed: 10/28/99	Geoprobe Boring Log	Geoprobe Boring Log		
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Ora Route 1 Improvements	ange, CT	Inspector: Cindy Knight	
De	oth	Descripti	on		Comments	
<u>m</u>			L - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel		re Sample 0 - 0.6m (0' - 2'):	
0.3	1'-	Dark-Gra	ay fine to coarse SAND, little Silt, trace fine to coarse Gravel		PID = 0 ppm	
0.6	2'-				re Sample 0.6 - 1.2m (2' - 4'):	
0.9	3'-					
1.2	4' —	Brown S	ILT, little fine Gravel & Cobble, trace fine Sand & Clay		PID = 0.3 ppm	
					O	
1.5	5'-			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):	
					PID = 0 ppm	
1.8	6'-					
	_	Refusal	at 1.5 m (5') on Bluish-Green Phyllite			
2.1	7'					
Ī	_					
2.4	8'—					
2.4						
0.7						
2.74	9 –					
3	10'-					
	-					
3.4	11'-					
3.7	12					
4	13'-					
	-					
4.3	14'-					
4.6	15'-					
	-	1				
4.9	16'-	{				
	-	1				
<u>m</u>	<u> </u>	<u> </u>	Trace = 0-10% Little = 10-20% Some =	20-35%	And = 35-50%	
Soi	i Des	cription Explanation	Trace = 0-10% Little = 10-20% Some =	20 00 /0	7 tild = 00-0070	

Date	Starte	d: 10/28/99	Logical Fn	vironmenta	I Solutions	Boring No.: GP-3
Date	Finish	ed: 10/28/99	Geor	orobe Borin	g Log	Client: Maguire Group Inc.
Drille	er: Way	yne Lineberry	Project Location: Task 2	10 Surficial Site Investi Route 1 Improvemen	igation - Orange, CT nts	Inspector: Cindy Knight
De	oth.	Description	on			Comments
m			L - 10 cm (4") - Dark Browr	n SILT, trace fine Sand & fi	Macro Go	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Dark-Gra	ay fine to coarse SAND, litt	le Silt, trace fine to coarse	Gravel	PID = 0 ppm
0.6	2'				Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—	Red-Brov	wn fine to coarse SAND, lit	tle fine to coarse Gravel, tr	race Silt	PID = 0 ppm
1.2	4' —					
1.5	5'-	End of Bo	oring at 1.2 meters			
1.8	6' —					
2.1	7'-					
2.4	8' —					
2.74	9' —					
3	10					
3.4	11'-					
3.7	12'-					
4	13'-					
4.3	144					
4.6	15'—					
4.9	16'—					
m	ft				·····	
Soil	Descr	ription Explanation	Trace = 0-10%	Little = 10-20%	Some = 20-35%	And = 35-50%

Date	Starte	ed: 10/28/99	Logical Environmental Solutions			Boring No.: GP-4
Date	Finish	ned: 10/28/99				Client: Maguire Group Inc.
Drille	er: Way	yne Lineberry	Project Location: Task 210 Surfi Route	cial Site Investigation - Ora 1 Improvements	inge, CT	Inspector: Cindy Knight
De	pth ft	Descriptio	n			Comments
m	"-		- 10 cm (4") - Dark Brown SILT, tr	ace fine Sand & fine Gravel		re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Dark-Gra	r fine to coarse SAND, little Silt, tra	ice fine to coarse Gravel	I	PID = 0 ppm
0.6	2'					
0.9	3'-	Red-Brow	n fine to coarse SAND, little fine to	coarse Gravel, trace Silt		re Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4' -					
1.5	5' —	End of Bo	ring at 1.2 meters			
1.8	6' —					
2.1	7'-					
2.4	8' —					
2.74	9' -					
3	10'-					
3.4	11'					
3.7	12					
4	13'-		ı			
4.3	14-					
4.6	15'—					
4.9	16'—					
	7					
m Soil	Desci	ription Explanation	Trace = 0-10% Little =	10-20% Some = 2	20-35%	And = 35-50%

Date	Star	ted: 10/28/99	Logical Environmental Solut	ions	Boring No.: GP-5
Date	Finis	shed: 10/28/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	ige, CT	Inspector: Cindy Knight
De	pth ft_	Descript			Comments
m	ft _		IL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel		re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			1	PID = 0 ppm
0.6	2'—	Brown S	SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay		
0.9	3' —				re Sample 0.6 - 1.2m (2' - 4'):
	_				PID = 0 ppm
1.2	4' —	,		•	
1.5	5' —				
1.8	6' —	End of E	3oring at 1.2 meters		
1.0	_				
2.1	7'-				
2.4	8' —				
2.74	9' —				
3	10				
3.4	11'-				
3.7	12'-				
4	13 <u>'-</u>				
4.3	14 <u>'</u>				
4.6	15' —				
4.9	16'—				
m Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20	0-35%	And = 35-50%

Date	Starte	ed: 10/28/99	Logical Environmental Solutions	Boring No.: GP-6
Date	Finish	ed: 10/28/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Way	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De n	pth ft	Descriptio	n	Comments
		TOPSOIL	- 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel Macro	Core Sample 0 - 0.6m (0' - 2'):
0.3	1'-			PID = 0 ppm
0.6	2'	Brownish	Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	•
0.9	3'		Macro	Core Sample 0.6 - 1.2m (2' - 4'):
0.0				PID = 0 ppm
1.2	4'-			
1.5	5'—			
1.0		End of Bo	ring at 1.2 meters	
1.8	6'-			
0.4				
2.1	7' -			
2.4	8'-			
2.74				
3	10'-			
	-			
3.4				
3.7	12'-			
	+			
4	13			
4.3	14'			
	$\mid \dashv$			
4.6	15'—			
4.9	16'-			
m C	Lft.	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%
201	Desci	IIDUUTI EXDIAHAUUTI	11400 - 0-1070 EILIO - 10 2070 COMO - 20-0070	,a 00 00 /0

Date	Start	ted: 10/28/99	Logical Environmental Solutions	Boring No.: GP-7
Date	Finis	hed: 10/28/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	pth	Descripti	ion	Comments
m			CONTROL DE CONTROL CONTROL CONTROL	ore Sample 0 - 0.6m (0' - 2'):
0.3	1'-			PID = 0 ppm
0.6	2'-	Brownish	n Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
0.9	3'-		Macro C	Core Sample 0.6 - 1.2m (2' - 4'):
0.9	_			PID = 0.2 ppm
1.2	4' —			
1.5	5' —			
		End of B	oring at 1.2 meters	
1.8	6'-			
2.1	7'-	1		
'	_			
2.4	8'—			
2.74	9' —			
	_			
3	10'-			
3.4	11'-			
3.7	12'-			
	_			
4	13'-			
4.3	14'-			N.
4.6	 15'			
4.9	- 16'			
	-			
m Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	ted: 10/28/99	Logical Environmental Solutions	Boring No.: GP-8
Date	Finis	hed: 10/28/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	pth ft	Description		Comments
m	T -			re Sample 0 - 0.6m (0' - 2'):
	-			•
0.3	1'-			PID = 0 ppm
0.6	2'-	Dark-Brov	wn fine to medium SAND, trace Silt, Brick, fine to coarse Gravel, & Cobble	
	-		Macro Co	ore Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			
				PID = 0.4 ppm
1.2	4'-			
	-			
1.5	5'-	·		
		End of Bo	oring at 1.2 meters	
	_	2110 07 50	5.111g ut 1.12 11101011	
1.8	6'-			
	_			
2.1	7'—			
	_			
2.4	8'-			
2.4	0 -			
2.74	9' —			
	-			
3	10'			
	ļ			
3.4	11'			
	-			
3.7	12'-			
	121			
4	13'-	1		
	-			
4.3	14'-			
	_			
4.6	15'—			
	_			
	,			
4.9	16'—	1		
	-			
m	ft			4 1 05 -00/
Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date Finished	Date	Started	i: 10/28/99	Logical Env	ironmental	Solutions	Boring No.: GP-9
Driller Driller Driller Driller Driller Driller Driller Driller Driller	Date	Finishe	d:	Geopi	obe Boring	Log	Client: Maguire Group Inc.
ASPHALT - 10 cm (4") Macro Core Sample 0 - 0.6m (0" - 2"): PID = 0.3 ppm Dank-Brown fine to medium SAND, trace Silt, Brick, fine to coarse Gravel, & Cobble Macro Core Sample 0.6 - 1.2m (2" - 4"): PID = 0 ppm 1.2 4" 1.5 5" End of Boring at 1.2 meters End of Boring at 1.2 meters 3.4 1" 3.7 12" 4.3 14" 4.6 15" 4.9 16	Drille	er: Wayı	ne Lineberry	Project Location: Task 210	Surficial Site Investiga Route 1 Improvements	ation - Orange, CT	
ASPHALT - 10 cm (4") ASPHALT - 10 cm (4") Macro Core Sample 0 - 0.6m (0" - 2"): PID = 0.3 ppm Dark-Brown fine to medium SAND, trace Sitt, Brick, fine to coarse Gravet, & Cobble Macro Core Sample 0.6 - 1.2m (2" - 4"): PID = 0 ppm 1.2 4* 1.5 5' - End of Boring at 1.2 meters End of Boring at 1.2 meters 3.4 11- 3.7 12- 4.3 14- 4.6 15- 4.9 16- - 4.9 16	De	pth	Descript		<u> </u>		Comments
Dark-Brown fine to medium SAND, trace Silt, Brick, fine to coarse Gravel, & Cobble Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm L2 4 L5 5'- End of Boring at 1.2 meters 8 6'- 2.1 7'- 2.4 8'- 3 10- 3.4 11- 3.7 12- 4 13- 4.8 14- 4.9 16'- 8 9 6'- 9 9 6'- 9 9 16'- 9						Macro Co	re Sample 0 - 0.6m (0' - 2'):
Macro Core Sample 0.5 - 1.2m (2 - 4): PID = 0 ppm 1.2	0.3	1'-					PID = 0.3 ppm
0.9 3 - PID = 0 ppm 1.2 4*- 1.5 5*- End of Boring at 1.2 meters 1.8 6*- 2.1 7*- 2.4 8*- 3 10- 3.4 11- 3.7 12- 4 13- 4.8 15- 4.9 16- - 4.9 16- - 1.9 16- 1.9 16- - 1.9 1	0.6	2' —	Dark-Br	own fine to medium SAND, tra	ce Silt, Brick, fine to coars	e Gravel, & Cobble	
PID = 0 ppm 1.2 4" 1.5 5" End of Boring at 1.2 meters 1.8 6" 2.1 7" 2.4 8" 2.74 9" 3 100 3.4 11" 4.3 14" 4.6 15" 4.9 16" 9 16" 9 16" 9 18"	nα					Macro Co	ore Sample 0.6 - 1.2m (2' - 4'):
1.5 5'- End of Boring at 1.2 meters 1.8 6'- 2.1 7'- 2.4 8'- 2.74 9'- 3 10'- 3.4 11'- 4 13'- 4.3 14'- 4.6 15'- 4.9 16'- 9 18'- 9 18'- 10 18'- 11 18'- 11 18'- 12 18'- 13 14'- 14 18'- 15 18'- 16 18'- 17 18'- 18 18 18 18 18 18 18 18 18 18 18 18 18 1	0.5						PID = 0 ppm
End of Boring at 1.2 meters 1.8 6' 2.1 7' 2.4 8' 2.74 9' 3.4 11' 4.3 14' 4.6 15' 4.9 16'	1.2	4'-	···				
End of Boring at 1.2 meters 1.8 6' 2.1 7' 2.4 8' 2.74 9' 3.4 11' 4.3 14' 4.6 15' 4.9 16'	4 5						
1.8 6' 2.1 7' 2.4 8' 2.74 9'- 3 10'- 3.4 11' 4 13' 4.3 14' 4.6 15' 4.9 16'	1.5	5 1	End of E	Boring at 1.2 meters			
2.4 8' — 2.74 9' — 3 10' — 3.7 12' — 4 13' — 4.3 14' — 4.6 15' — 4.9 16' — 9 10' — 10 10 10 10 10 10 10 10 10 10 10 10 10 1	1.8	6'-		.			
2.4 8' — 2.74 9' — 3 10' — 3.7 12' — 4 13' — 4.3 14' — 4.6 15' — 4.9 16' — 9 10' — 10 10 10 10 10 10 10 10 10 10 10 10 10 1		-					
2.74 9' — 3 10— 3.4 11'— 3.7 12'— 4 13'— 4.6 15'— 4.9 16'— — 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.1	7'-					
3 10- - 3.4 11- - 3.7 12- - 4 13- - 4.3 14- - 4.6 15 - 4.9 16- - -	2.4	8'-					
3 10- - 3.4 11- - 3.7 12- - 4 13- - 4.3 14- - 4.6 15 - 4.9 16- - -							
3.4 11' 3.7 12' 4 13' 4.3 14' 4.6 15' 4.9 16' 1	2.74	9'-					
3.7 12'- - 4 13'- - 4.3 14'- - 4.6 15'- - 4.9 16'- - m n	3	10'-					
-	3.4	11'-					
-							
4.3 14 - 	3.7	12-					
4.6 15' 4.9 16' m f	4	13 <u>'</u>					,
4.9 16' 	4.3	14					
m f	4.6	15'-					
m f							
	4.9	16'					
I SOIL DESCRIPTION EXPLANATION — FIGURE = U-1070 — LIMB = 10-2070 — A0HE = 20-3070 — AHE = 35-507%		l Descri	ntion Evnlanation	Trace = 0-10% Li	ttle = 10-20%	Some = 20-35%	And = 35-50%

Date Star	rted:	-				Boring No.:
10/28/99		Logical Environmental Solutions		GP-10		
Date Finis	shed: 10/28/	/99	Geop	robe Boring	Log	Client: Maguire Group Inc.
Driller: W	ayne Linebe	rry	Project Location: Task 210	0 Surficial Site Investigat Route 1 Improvements	tion - Orange, CT	Inspector: Cindy Knight
Depth m ft		Descriptio	n			Comments
	-	TOPSOIL	- 10 cm (4") - Dark Brown S	SILT, trace fine Sand & fine	Gravel Macro Coi	re Sample 0 - 0.6m (0' - 2'):
_ -	1				ı	PID = 0.1 ppm
0.3 1'-	1					
-	1			0	ine Cand 9 Class	
0.6 2'-] '	Grayish-B	rown SILT, little fine to coar	se Gravel & Cobble, trace fi	ine sand a clay	
_ _					Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9 3'-					l	PID = 0 ppm
-						
1.2 4'-						
4 - -						
1.5 5'-	1	mad d=	ring of 4.0 marks			
_	1	⊨nd of Bo	ring at 1.2 meters			
1.8 6'-	1					
_ _						
2.1 7'-						
_	1					
2.4 8' -	1					
	1					
2.74 9' -	1					
_	1					
3 10'-						
_ -	1					
3.4 11'-	1					
	1					
3.7 12	1					
-	1					
4 13'-	1					
-						
4.3 14	1					
-	1					
4.6 15'-	1					
. -	1					
4.9 16'-	1					
_ -	1			•		
Soil Des	scription Expla	anation	Trace = 0-10%	_ittle = 10-20%	Some = 20-35%	And = 35-50%

Date	Starte	d: 10/29/99	Logical Environmental Solutions	Boring No.: GP-11
			Logical Environmental Solutions Geoprobe Boring Log	
Drille	er: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De n	pth ft	Descriptio	n	Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel Macro	Core Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brownish-	-Gray SILT, trace fine Gravel & Clay	PID = 0 ppm
0.6 0.9	2' -	Orange-B	rown SILT, trace fine Gravel Macro	Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4			
1.5	5' —		·	
1.8		End of Bo	ring at 1.2 meters	
1.0	6' -			
2.1	7'-			
2.4	8' —			
	-			
2.74	9' —			
3	10'-			
3.4	11'-			
3.7	12'-			
4	13'-			
4.3	14-			
4.6	15'—			
4.9	16'—			
m	ft			
Soil	Descr	iption Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	ted: 10/29/99	Logical Environmental Solution	ons	Boring No.: GP-12
Date Finished: 10/29/99			Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	e, CT	Inspector: Cindy Knight
De m	oth ft	Description	n		Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	e Sample 0 - 0.6m (0' - 2'):
0.3	1'-			F	PID = 0.2 ppm
0.5	' 				
0.6	2'-				
		5 011	T little fine Capital & Cabble trace fine Sand & Clay	Macro Coi	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-	Brown SIL	T, little fine Gravel & Cobble, trace fine Sand & Clay	F	PID = 0.4 ppm
1.2	4' —				
1.5	5' —			Macro Cor	re Sample 1.2 - 2.4m (4' - 8'):
	-			F	PID = 0 ppm
1.8	6'-				
	-				
2.1	7' —	Groundwater at 2.1ı Grayish-B	m (7') rown SILT, little fine Gravel & Cobble, trace fine Sand & Clay		
2.4	8' —			Vacro Cor	re Sample 2.4 - 2.74m (8' - 9'):
2.74	0'	Brown coa	arse SAND, trace fine to coarse Gravel	F	PID = 0 ppm
2.17	_				
3	10'-				
		Refusal at	t 2.74 m (9') on Bluish-Green Phyllite		
3.4	11'—				
3.7	125				
3.7	 -				
4	13'-				
	_				
4.3	14'-				
4.6	_ 15'—				
	_				
4.9	16'—				
	-				
m Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-3	5%	And = 35-50%

					· · · · · · · · · · · · · · · · · · ·
Date Started: 10/29/99		ed: 10/29/99	Logical Environmental Solutions		Boring No.: GP-13
Date	Finish	ned: 10/29/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	ge, CT	Inspector: Cindy Knight
De	pth _{ff}	Description	on		Comments
m		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown SI	LT, little fine Gravel & Cobble, trace fine Sand, Brick & Clay	F	PID = 0 ppm
0.6	2'-				
	-			Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'			ı	PID = 0.4 ppm
1.2	4'-		,		
	<u> </u>	Orange-E	Brown SILT, trace fine Gravel to coarse Gravel & Cobble	Macro Coi	re Sample 1.2 - 2.4m (4' - 8'):
1.5	5' —				PID = 0 ppm
1.8	6'-				
2.1	7				
۷.۱					
2.4	8'-				
2.74	9' —				
_	-	Refusal a	at 2.4 m (8') on Bluish-Green Phyllite		
3	10'-	,,,,,,			
3.4	11'-				
3.7	124				
4	13'-				
4.3	14				
4.0					
4.6					
4.9 	16'-				
m					
Soil	Desc	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20)-35%	And = $35-50\%$

Date	Start	^{ed:} 10/29/99	Logical Environmental Solut	tions	Boring No.: GP-14
Date	Finis	hed: 10/29/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oral Route 1 Improvements		Inspector: Cindy Knight
De m	oth ft_	Descriptio		<u></u>	Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown SIL	T, little fine Gravel & Cobble, trace fine Sand, Brick & Clay	.	PID = 0 ppm
	2' -				re Sample 0.6 - 1.2m (2' - 4'):
1.2	4' —			I	PID = 0 ppm
1.5	5' —	Orange-B	rown SILT, trace fine Gravel to coarse Gravel & Cobble		re Sample 1.2 - 2.4m (4' - 8'):
1.8	6' —			ŀ	PID = 0.3 ppm
2.1	7'-				
2.4	8'-				
2.74	9' —				
3	10 '	Refusal a	t 2.4 m (8') on Bluish-Green Phyllite		
3.4	11'				
3.7	12'-				
4	13 '-				
4.3	14'-				
4.6	15'—				
4.9	16'—				
m Soil	ft Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 2	20-35%	And = 35-50%

Date	Starte	ed: 11/14/99	Logical Envi	ronmental	Solutions	Boring No.: GP-15
Date	Finish	ned: 11/14/99	Geopre	be Boring	Log	Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 S	Surficial Site Investiga oute 1 Improvements	tion - Orange, CT	Inspector: Cindy Knight
De	pth ft	Descripti	on			Comments
m		TOPSOI	L - 18 cm (7") - Dark Brown fine	SAND & SILT, trace fine	e to coarse Gravel Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-				ı	PID = 1.0 ppm
0.6	2'	Dark-Bro	own fine to medium SAND, little	Silt, trace fine to coarse	Gravel	
0.9	3'-				Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.5			Our CUT trace fine to corre			PID = 0.2 ppm '
1.2	4'-	Brownist	n-Gray SILT, trace fine to coarse	e Graver & Clay		
1.5	5'-					
		End of B	oring at 1.2 meters			
1.8	6'-					
2.1	7'-					
2.4	8'-					
2.74	9' —					
3	10					
3.4	11'-					
3.7	12					
4	13'-					
4.3	14'-					
4.6	15'-					
4.9	16'-					
						, -
Soi	Desc	ription Explanation	Trace = 0-10% Littl	e = 10-20%	Some = 20-35%	And = 35-50%

Date	Starte	ed:	11/14/99	Logical Environmental Soluti	ons	Boring No.: GP-16
Date	Finish	hed:	11/14/99	Geoprobe Boring Log	Geoprobe Boring Log	
Drille	er: Wa	ayne	Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	e, CT	Inspector: Cindy Knight
Dep m	oth ft		Descriptio	n		Comments
			TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
	\vdash					
0.3	1'-				ŀ	PID = 0.2 ppm
0.6	2'					
0.0	_		Brown SII	LT, little fine Gravel & Cobble, trace fine Sand & Clay		
					Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				ı	PID = 0.8 ppm
	╽╶┨					
1.2	4'-					
	4					
1.5	5'—				Macro Co	re Sample 1.2 - 2.1m (4' - 7'):
			Grayish-E	Brown fine to medium SAND, trace fine Gravel & Silt	i	PID = 1.1 ppm
1.8	6'-					
	╽┥		Grayish-E	Brown SILT, trace fine to coarse Gravel		
2.1	7'-					
2.4	8' –					
2.74	ים					
2.77						
	$ \ $		Refusal a	at 2.1 m (7') on Bluish-Green Phyllite		
3	10					
	-					
3.4	11'-					
	4					
3.7	12					
4	121					
"	13'-					
4.3	14'-					
	-					
4.6	15'-	•				
	_	ł				
4.9	16'—					
	f+					
Soil	Desc	criptic	on Explanation	Trace = 0-10% Little = 10-20% Some = 20-	35%	And = 35-50%

Date	Start	ed: 11/14/99	Logical Environmental Soluti	ons	Boring No.: GP-17
Date	Finisl	hed: 11/14/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	e, CT	Inspector: Cindy Knight
Dep	oth ft	Descriptio	n		Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	e Sample 0 - 0.6m (0' - 2'):
	ㅓ				
0.3	1'-			ŀ	PID = 0.6 ppm
	4				
	,				
0.6	2'-	Brown SII	LT, little fine Gravel & Cobble, trace fine Sand & Clay		
		2.0		Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				PID = 1.1 ppm
	⊢⊢				FF
1.2	4'-				
1.5	5'-			Macro Coi	re Sample 1.2 - 2.1m (4' - 7'):
1.5	٥٦	Grayish-B	rown fine to medium SAND, trace fine Gravel & Silt		
				,	PID = 0.2 ppm
1.8	6'-				
	$\mid \dashv$	Grayish-B	Brown SILT, trace fine to coarse Gravel		
2.1	7'-	-			
2.4	8				
2.74	9'-				
		Refusal a	t 2.1 m (7') on Bluish-Green Phyllite		
3	10'-	(Crabar a	(2)		
٠,	4,				
3.4					
	-				
3.7	12'-				
	-				
4	13'-				
4 0	 				
4.3	14				
4.6	15'-				
	-				
4.9	16'				
m	l ft				
Soil	سب. معمر	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-	35%	And = 35-50%

				I
Date	Starte	ed: 11/14/99	Logical Environmental Solutions	Boring No.: GP-18
Date	Finish	ned: 11/14/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Orille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	oth _f	Descriptio	n	Comments
II		TOPSOIL	- 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Grayel Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-		1	PID = 0.1 ppm
0.6	- 2'-	Dark-Brov	vn fine to medium SAND, little Silt, trace fine to coarse Gravel	
	-		Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			PID = 0.6 ppm
1.2	4'-			
1.5	5' —	Brownish-	Gray SILT, trace fine to coarse Gravel & Clay	re Sample 1.2 - 2m (4' - 6.5'):
				PID = 1.1 ppm
1.8	6'-			
2.1	7' —			
2.4	8' —	Refusal at	t 2m (6.5') on Greenish-Blue Phyllite	
0.74				
2.74	9 –	V		
3	10'-			
3.4	11'-			
3.7	12			
3.1				
4	13 '-			
4.3	14'-			
4.6	15'-			
→. ∪				
4.9	16'—			
m		ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

			The state of the s	T
Date	Starte	^{d:} 11/14/99	Logical Environmental Solutions	Boring No.: GP-19
Date	Finishe	ed: 11/14/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	pth_	Descriptio		Comments
11		TOPSOIL	- 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel Macro Co	re Sample 0 - 0.6m (0' - 2'):
				PID = 0.1 ppm
0.3	1'-			-1D - 0.1 ppm
	-			
0.6	2'-	Dark-Brov	พท fine to medium SAND, little Silt, trace fine to coarse Gravel	
		Dain Bloc		
0.9	3'-		Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9				PID = 0.7 ppm
1.2	4'-			
	🕇		Macro Co	re Sample 1.2 - 2m (4' - 6.5'):
1.5	5'	Grav-Brov	ting to modium SAND trace Silt & fine to coarse Gravel	
		0.0, 2.0		PID = 0.2 ppm
1.8	6'—			
	4	Brownish-	-Gray SILT, trace fine to coarse Gravel & Clay	- 1.12m ·
2.1	7'-			
- . 1	[
	<u> </u>	Refusal a	t 2m (6.5') on Greenish-Blue Phyllite	
2.4	8' 🚽			
	lΤ			
2.74	9' —			
3	10'-			
	4			
3.4	11'-			
0.7	101			
3.7	12			
4	13'			
	1			
4.3	14'-			
	-			
4.6	15'—			
4.9	16'—			
	_			
m				
m Soil	Descr	iption Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

		_		
Date	Starte	d: 11/14/99	Logical Environmental Solutions	Boring No.: GP-20
Date Finished: 11/14/99		ed: 11/14/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Way	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
	pth	Description		Comments
n		TOPSOIL	18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'		į	PID = 0.2 ppm
		Dark-Brov	wn fine to medium SAND, little Silt, trace fine to coarse Gravel	
0.6	2'-			
	-		Macro Col	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			PID = 1.0 ppm
1.2	4'			
4 5	_,		Macro Co	re Sample 1.2 - 2m (4' - 6.5'):
1.5	5'	Brownish	-Gray SILT, trace fine to coarse Gravel & Clay	PID = 0 ppm
	7			· · · · · · · · · · · · · · · · · · ·
1.8	6'-			
	1 🕇			
2.1	7'-			
		Refusal a	t 2m (6.5') on Greenish-Blue Phyllite	
2.4	8'-			
2.74	9' -			
_				
3	10			
3.4	11'-			
J. 4				
3.7	12			
4	13'-			
4.3	14			
	-			
4.6	15'—			
4.9	16'			
m	ft			
Soi	Descr	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Starte	ed: 10/29/99	Logical Environmental Solution	Boring No.: GP-21
Date	Finish	ned: 10/29/99	Geoprobe Boring Log	Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, C Route 1 Improvements	T Inspector: Cindy Knight
De m	pth ft	Descript	ion	Comments
		TOPSO	IL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel Macr	o Core Sample 0 - 0.6m (0' - 2'):
0.3	1'-			PID = 0 ppm
0.6	2'-	Brownisi	h-Gray SILT, trace fine Gravel & Clay	
			Mac	ro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3' —			PID = 0.2 ppm
1.2	4' 🕂			
1.5	5'-			
1.5		End of E	Boring at 1.2 meters	
1.8	6'-		·	
2.1	7'-			
2.4	8'-			
2.74	9' —			
3	10'-			
ľ				
3.4	11'-			
3.7	12'-			
4	13'-			
-				
4.3	14			
4.6	15'—			
4.9	16'-			
	-			
m Soi	l Desc	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	ed: 10/29/99	Logical Environmental Soluti	ons	Boring No.: GP-22
Date	Finis	hed: 10/29/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Driller: Wayne Lineberry			Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	je, CT	Inspector: Cindy Knight
De	pth _f	Descriptio	on		Comments
n			- 20 cm (8") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'—			i	PID = 0.2 ppm
0.6	2' —	Brownish-	-Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Cl		ra Cample 0.6 - 1.2m (2' - 4')
0.9	3'—				re Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4' — —				
1.5	5' —	Orange-B	rown SILT, trace fine Gravel & Clay		re Sample 1.2 - 2.4m (4' - 8'): PID = 0 ppm
1.8 2.1	6' - - 7' -				
2.4 2.74	8' — 9' —	Gray-Bro\	wn fine to medium Sand, little fine to coarse Gravel & Cobble, trace S	ilt	re Sample 2.4 - 3m (8' - 10'): PID = 0 ppm
3	10				
3.4	11'-				
3.7	12' -	Refusal a	it 3 m (10') on Bluish-Green Phyllite		
4	13 <u>'</u>				
4.3	14 '				
4.6 4.9	16'—	<i>y</i> - 1			
m			Trace = 0-10% Little = 10-20% Some = 20-	35%	And = 35-50%
Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-	·JJ /0	Aliu - 30-00%

Date	Start	ed: 10/29/99	Logical Environmental Solution	ons	Boring No.: GP-23
Date	Date Finished: 10/29/99		Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	e, CT	Inspector: Cindy Knight
De	oth	Descriptio	n		Comments
m	-#		con to the Country of the Country of the Crowd	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
				ļ	PID = 0 ppm
0.3	1'-				
0.6	2'-		and the second of the second o		
	-	Brownish-	Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Cla		re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—			1	PID = 0 ppm
1.2	4' —				
				 Macro Coi	re Sample 1.2 - 2.4m (4' - 8'):
1.5	5' —				PID = 0.4 ppm
1.8	6' —	Orange-B	rown SILT, trace fine Gravel & Clay		
2.1	- 7'				
2.1					
2.4	8' —			Macro Co	re Sample 2.4 - 3m (8' - 10'):
2.74	9' —	Gray-Brov	wn fine to medium Sand, little fine to coarse Gravel & Cobble, trace Si	ilt I	PID = 0 ppm
	_				
3	10'-			,	
3.4	11'—				
	-	Refusal a	t 3 m (10') on Bluish-Green Phyllite		
3.7	12' -	recident			:
4	13'-				
4.3	- 14				
	-				
4.6	15'—				
4.9	16'—				
	-				
m Soil	L _{ft} Des	Cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-3	35%	And = 35-50%

Date	Starte	ed: 1	1/14/99	Logical En	vironmenta	l Solutions	Boring No.: GP-24
Date	Finish	hed:	11/14/99	Geo	probe Borin	g Log	Client: Maguire Group Inc.
Drille	er: Wa	ayne L	ineberry	Project Location: Task 2	10 Surficial Site Invest Route 1 Improveme	igation - Orange, CT nts	Inspector: Cindy Knight
De	oth ft		Descriptio				Comments
	_		TOPSOIL	- 18 cm (7") - Dark Brow	n SILT, trace fine Sand & f		re Sample 0 - 0.6m (0' - 2'):
0.3	1'—		Brown fine	e to coarse SAND, little fir	ne to coarse Gravel, trace	Silt	PID = 0.2 ppm
0.6	2' —		Weathere	d Bluish PHYLLITE		Macro Co	re Sample 0.6 - 0.9m (2' - 3'):
0.9	3'-				<u> </u>	l	PID = 0 ppm
1.2	4' —		Refusal a	t 0.9m (3') on Greenish-B	lue Phyllite		
1.5	5' —		Nerusai ai	(o) on electricity			
1.8	6'-		,				
2.1	7'-						
2.4	8'-						
2.74	9' —						
3	10'-			,			
3.4	11'-						
3.7	12'-						
4	13 '-						
4.3	14'-						
4.6	15'— —						
4.9	16'—						
m	ft	<u> </u>				0 00 0=01	A. J. 05 500/
Soil	Desc	cription	Explanation	Trace = 0-10%	Little = 10-20%	Some = 20-35%	And = 35-50%

Date	Start	ed: 11/14/99	Logical Environmental Soluti	ions	Boring No.: GP-25
Date	Finisl		Logical Environmental Soluti Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	ge, CT	Inspector: Cindy Knight
_ De	pth	Description	on		Comments
<u>m</u>			- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown fin	e to coarse SAND, little fine to coarse Gravel, trace Silt		PID = 0 ppm
0.6	2'-		ed Bluish PHYLLITE	 Macro Co	re Sample 0.6 - 0.9m (2' - 3'):
0.9	3'				PID = 0 ppm
1.2	4'-				
1.5	5'	Refusal a	t 0.9m (3') on Greenish-Blue Phyllite		
1.8	6'-				
2.1	7'-				
2.4	8' —				
2.74	9' —				
3	10'-				
3.4	11'-	·			
3.7	12'-				
4	13'-				
4.3	14				
4.6	15'-				
4.9	16'—				
m Soi	f Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20	-35%	And = 35-50%

Date	Starte	ed: 11/14/99	Logical Environmental Solution	ns	Boring No.: GP-26
Date	Finish	ned: 11/14/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, Route 1 Improvements	СТ	Inspector: Cindy Knight
De	oth ft	Descriptio	n		Comments
,ı. <u></u>		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	acro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			i	PID = 0 ppm
	-	Dark-Brov	wn fine SAND, little Silt, trace fine to coarse Gravel		
0.6	2'-				
0.9	3'-		M		re Sample 0.6 - 1.2m (2' - 4'):
	_	 Brown SIL	 _T, trace fine to coarse Gravel & Clay		PID = 0.4 ppm
1.2	4'-				
1.5	5' —		М	acro Co	re Sample 1.2 - 2.1m (4' - 7'):
		Grayish-B	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace S	Silt I	PID = 0.2 ppm
1.8	6'-				
2.1	7'-				
2.4	8' —				
2.74	9' _				
		Refusal a	t 2.1 m (7') on Bluish-Green Phyllite		
3	10'-				
3.4	11'-				
	-				
3.7	12'-				
4	13-				
	-				
4.3	14'-				
4.6	15'-				
4.9	16'-				į
m	-			-0/	
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35	%	And = 35-50%

r

Date	Start	ted: 11/14/99	Logical Environmental Solution	Boring No.: GP-27
Date	Finis	hed: 11/14/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	∍r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, C Route 1 Improvements	T Inspector: Cindy Knight
m De	pth _f	Description	on	Comments
ш			CHT to a fire Count & fire Crount	o Core Sample 0 - 0.6m (0' - 2'):
	╽╶┤			
0.3	1'-			PID = 0.4 ppm
		Dark-Bro	wn fine SAND, little Silt, trace fine to coarse Gravel	
0.0	ا ا			
0.6	2' –			
			Mac	o Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—			PID = 0.3 ppm
	-			.,
1.2	4'-			
1.5	5'—		Macr	o Core Sample 1.2 - 2.4m (4' - 8'):
		Brown SI	LT, trace fine to coarse Gravel & Clay	PID = 0.6 ppm
		2.0		• •
1.8	6'-			
	_			
2.1	7'-			
	-			
2.4	8' —			1198
	_			
2.74	9' _			
		Refusal a	at 2.4 m (8') on Bluish-Green Phyllite	
3	10'-			
	-			
3.4	11'-			
	-			
3.7	12'-			
	_			
4	13'-			
4	13			
				N. Committee of the com
4.3	14'-	1		
	-	1		
4.6	15'-	1		
	-			
4.9	16'—			
1	_			
m	ft			
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Starte	ed: 11/14/99	Logical Environmental Solution	ons	Boring No.: GP-28
Date Finished: 11/14/99		ned:	Geoprobe Boring Log	Geoprobe Boring Log	
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	e, CT	Inspector: Cindy Knight
De _l	oth ft	Descriptio	on		Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Cor	e Sample 0 - 0.6m (0' - 2'):
				F	PID = 0.2 ppm
0.3	1'-		C. CAND Hills Cill have fire to coope Cornel	·	• •
	-	Dark-Brov	wn fine SAND, little Silt, trace fine to coarse Gravel		
0.6	2'				
	-			Macro Coi	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				
				'	-10 – 1.3 ррш
1.2	4'-				
1.5	5'—		I	Macro Cor	re Sample 1.2 - 2.4m (4' - 8'):
		Brown SII	LT, trace fine to coarse Gravel & Clay	F	PID = 0 ppm
1.8	6' —				
2.1					
۷. ۱					
۰.					
2.4	8 1				
2.74	9' -				
		Refusal a	t 2.4 m (8') on Bluish-Green Phyllite		
3	10'-				
3.4	114				
3.7	12'-				
4	13				
4.3	144				
4.6	15'-				
4.9					
+.ઇ	16'-				
m					
Soil	Desci	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-3	35%	And = 35-50%

Date	Starte	^{d:} 11/14/99	Logical Environmental So	olutions	Boring No.: GP-29
Date	Finish	ed: 11/14/99	Logical Environmental Solutions Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation Route 1 Improvements	- Orange, CT	Inspector: Cindy Knight
De m	pth	Descriptio	n		Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Grav	vel Macro Cor	e Sample 0 - 0.6m (0' - 2'):
				ı	PID = 0 ppm
0.3	1'-			·	то оррин
	-				
0.6	2'-	Dark-Brov	n fine SAND, little Silt, trace fine to coarse Gravel		
		X		Macro Coi	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				
	4			r	PID = 0 ppm
1.2	4'-	ide.			
1.5	5'-				
		End of Bo	ring at 1.2 meters		
1.8	6'-				
2.1	7'-				
2.4	8'-				
2.74	9'				
Sea . I T					
3	10'-				
3		Λ.			
2.4					
3.4	'				
3.7	12'-				
	17				
4	13'				
4.3	14				
4.6	15'				
4.9	16'—				,
					,
m Call	Doson	iption Explanation	Trace = 0-10% Little = 10-20% Sor	me = 20-35%	And = 35-50%
OOII	Desci	ipuon ⊑xpianauon	11400 0 1070 EILIO - 10 2070 OOI	//	55 00 /0

Date Started: 11/14/99			Logical Environmental Solutions		Boring No.: GP-30
Date	Finis	hed: 11/14/99	Logical Environmental Solutions Geoprobe Boring Log		Client: Maguire Group Inc.
Driller: Wayne Lineberry			Project Location: Task 210 Surficial Site Investigation - O Route 1 Improvements	range, CT	Inspector: Cindy Knight
De	pth _{ft}	Descriptio	n		Comments
Ц			- 13cm (5")	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'			1	PID = 0 ppm
			× .		
0.6	2'-				
0.0	$\lfloor L \rfloor$		CAND WILL CIT to a first to account Canada		
		Dark-Brov	wn fine to medium SAND, little Silt, trace fine to coarse Gravel	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3' 🗖			!	PID = 0.4 ppm
1.2	4'-				
					O
1.5	5'-			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
				1	PID = 0 ppm
1.8	6'				
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
2.1	,	, (3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	,		
2.4	8' —				
2.74	9' —				
	-				
3	10'-				
	-				
3.4	11'-				
		:			
3.7	12				
U .,					
4	121				
4	13'—				
	-				
4.3	14'		••		
	-				
4.6	15'—				
	_				
4.9	16'—				
m	ft		and the second s		
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some =	= 20-35%	And = 35-50%

Date	Start	ted: 11/14/99	Logical Environ	montal Salutions	Boring No.: GP-31
Date	Finis		Logical Environi	mental Solutions Boring Log	Client:
Date	- 11110	11/14/99			Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Route 1 I	Site Investigation - Orange, CT mprovements	Inspector: Cindy Knight
De _l	oth ft	Descripti			Comments
		ASPHAL	T - 13cm (5")	Macro Co	re Sample 0 - 0.6m (0' - 2'):
	[[PID = 0 ppm
0.3	1'-				
0.6	2' –				
0.9	3'	Dark-Bro	own fine to medium SAND, little Silt, trace	e fine to coarse Gravel Macro Co	ore Sample 0.6 - 1.2m (2' - 4'):
0.9	$\lfloor \rfloor$				PID = 0.3 ppm
1.2					
1.2	4' —				!
1.5	5'-			Macro Co	ore Sample 1.2 - 1.5m (4' - 5'):
					PID = 0 ppm
1.8	6'—				
	_				
2.1	7 -	Refusal	at 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
	-				
2.74	9' _				
3	10'-				
	-				
3.4	11'-				
3.7	12'				
	-				
4	13'-				
	-				
4.3	14				
	-				
4.6	15'				
4.9	16'—				
m Soil	لـــــــــــــــــــــــــــــــــــــ	ription Explanation	Trace = 0-10% Little = 10-2	0% Some = 20-35%	And = 35-50%

Date Started: 11/14/99		ed: 11/14/99	Logical Environmental Solutions		Boring No.: GP-32
Date	Finisl	ned: 11/14/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, (Route 1 Improvements		Inspector: Cindy Knight
De _l	oth ft_	Descriptio	n		Comments
		ASPHALT	- 13cm (5") Mac	cro Cor	e Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Dark-Brov	wn fine to medium SAND, little Silt, trace fine to coarse Gravel	F	PID = 0 ppm
0.6	2'-			· – – –	
	-		Ma	cro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			ı	PID = 0.3 ppm
	-				• •
1.2	4' —	Groundwater at 1.2r Dark-Brov	m (4') wn SILT, trace fine to coarse Gravel, fine Sand & Clay		
1.5	5'-		Ма	cro Coi	re Sample 1.2 - 2.1m (4' - 7'):
ι.υ					PID = 0 ppm
1.8	6'-				·
	-				
2.1	7' —				
	-				
2.4	8' —				
0.74	-	Refusal a	at 2.1 m (7') on Bluish-Green Phyllite		
2.74	٦ و				
3	10'-				
	_				
3.4	11'—				
	-				
3.7	12'-				
	121				
4	13-				
4.3	14'-				
	-				
4.6	15'—				
	-				
4.9	16'—				
m	-				,
m Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	%	And = 35-50%

Date Started: 11/14/99		ed: 11/14/99	Logical Environmental Solutions		Boring No.: GP-33	
Date	Finisl	hed: 11/14/99	Geoprobe Boring Log		Client: Maguire Group Inc.	
Drille	er: Wa	ayne Lineberry	Project Location: Task 2	10 Surficial Site Investig Route 1 Improvement	ation - Orange, CT s	Inspector: Cindy Knight
De	pth	Descriptio	n			Comments
	Г			SILT, trace fine Sand & fine	e Gravel Macro Co	re Sample 0 - 0.6m (0' - 2'):
	╽┤					
0.3	1'-				'	PID = 0 ppm
		Dark Prov	vn fine SAND, little Silt, tra	ce fine to coarse Gravel		
0.6	2'	Daik-blov	WIT TIME OAND, III. Out, tra	de fille to obtailed craver		
	-				Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—					PID = 0.2 ppm
	-					гю – 0.2 ррш
1.2	4'-					
	4					
1.5	5'—					
		End of Bo	ring at 1.2 meters			
		Life of Bo	mig at 1.2 meters			
1.8	6'-					
2.1	7'-					
	-					
2.4	8'—	,				
	_					
2.74	9' —					
	-					
3	10'-					
3.4	11'—					
3.7	12'-					
4	13'-					
4						
4.3	14'-					
4.6	15'—					
4.9	16'—					
n	ft					
Soil	Desc	ription Explanation	Trace = 0-10%	Little = 10-20%	Some = $20-35\%$	And = 35-50%

Date Started: 11/19/99		11/19/99	Logical Environmental Solution	Boring No.: GP-34	
Date	Finished:	11/19/99	Geoprobe Bornig Log		Client: Maguire Group Inc.
Drille	r: Wayne	Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, Route 1 Improvements	, CT	Inspector: Cindy Knight
Dep	oth ff	Descriptio	on		Comments
			F. 45 (CII)	lacro Cor	re Sample 0 - 0.6m (0' - 2'):
	4	DDIOK 4			
0.3	1'-	BRICK - 1	15cm (6")	ŀ	PID = 0 ppm
	4				
0.6	2'-				
İ	4	Dark-Brov	wn SILT, trace fine to coarse Gravel		
0.9	3'	Daik-biov	MI OILI, Made ille te dealles d'ave.	lacro Co	re Sample 0.6 - 1.2m (2' - 4'):
				ſ	PID = 0.2 ppm
,					
1.2	4' 🗍				
			M	Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'				PID = 0 ppm
	┨			•	РЮ — ў рріп
1.8	6'				
	4				
2.1	7'—	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
	4				
2.4	8'				
2.74	9'				
	<u> </u>				
_					
3	10'-				
	٦				
3.4	11'-				
	\dashv				
3.7	12'				
-	4				
4	13 '-				
	4				
4.3	14'-				
4.6	15'				
ا ۳۰۰					
4.9	16'-				
	7				
Soil I	_ Description	on Explanation	Trace = 0-10% Little = 10-20% Some = 20-35	5%	And = 35-50%

Date	Starte	ed: 11/19/99	Logical Environmental Solutions	Boring No.: GP-35
Date	Finish		Logical Environmental Solutions Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
Dep	oth_	Descriptio	n	Comments
m				ore Sample 0 - 0.6m (0' - 2'):
	-			PID = 1.2 ppm
0.3	1'-			110 - 1.2 ppm
	-			
0.6	2'-	Brown fin	e to coarse SAND, little fine to coarse Gravel, trace Silt	
				ore Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-		IVIACIO CI	
				PID = 0 ppm
1.2	4'			
1.2				
1.5	E'			
1.5		E. J. (D.	with a st.4.2 motors	
		End of Bo	oring at 1.2 meters	
1.8	6'7			
	╽╡			
2.1	7'-			
	-			
2.4	8' 🗕			
	-			
2.74	9' 🗕			
	4			
3	10'-			
3.4	11'-			
0. 1				
0.7	401			
3.7	12'-			
4	13			
4.3	14			
	-			
4.6	15'—			
4.9	16'—			
m	ft	<u> </u>	20.000	A-4 - 05 500/
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = $35-50\%$

Date	Started	l: 11/19/99	Logical Enviro	nmental Sol	utions	Boring No.: GP-36
Date	Finishe		Logical Environment Geoprob	oe Boring Lo	g	Client: Maguire Group Inc.
Drille	r: Wayı	ne Lineberry	Project Location: Task 210 Sur Rout	ficial Site Investigation - C e 1 Improvements	Orange, CT	Inspector: Cindy Knight
Dej	oth,	Description	<u> </u>			Comments
n			Γ - 10cm (4")		Macro Cor	e Sample 0 - 0.6m (0' - 2'):
	\vdash					
0.3	1'-				ľ	PID = 1.5 ppm
0.6	2'-	Brown fir	ne to coarse SAND, little fine to coa	arse Gravel, trace Silt		
		DIOWII III	10 to obtained by 1112, 11110 11110 to the			
0.9	3'-				Macro Coi	re Sample 0.6 - 1.2m (2' - 4'):
0.0					Ī	PID = 1.2 ppm

1.2	4' 🕇					
1.5	5'-					
	-	End of B	oring at 1.2 meters			
1.8	6'-					
	-					
2.1	7'-					
						:
2.4	8'-					
	ľ					
2.74	ο'					
۷.14						
3	10'-					
3.4	11'-					
	┥					
3.7	12'-					
	4					
4	13'-					
4.3	14					
4.5	'T_					
4.0	151					
4.6	15'—					
4.9	16'—					
	1 +					
m_Soil	Lft L	iption Explanation	Trace = 0-10% Little =	: 10-20% Some	= 20-35%	And = 35-50%
		Pari Explanation				

Date Started: 11/19/99		ed: 11/19/99	Logical Environmental Solution	Boring No.: GP-37	
Date	Finish	ned: 11/19/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, Route 1 Improvements	, CT	Inspector: Cindy Knight
Dep	oth ft	Description			Comments
			The Court of the C	lacro Cor	e Sample 0 - 0.6m (0' - 2'):
					PID = 1.5 ppm
0.3	1'-			ŀ	- u – 1.0 ррпі
			2		
0.6	2'-	Brown fin	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt		
0.0	_				
			N	lacro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			[PID = 2.4 ppm
				·	:
1.2	4' —	Brown SI	LT, little fine to coarse Gravel & Cobble		i
	-	DIOWII OII		100== O	ro Comple 1.0. 4 Em /41 Elv
1.5	5'-		N. N.		re Sample 1.2 - 1.5m (4' - 5'):
				ı	PID = 0 ppm
1.8	6'-				
1.0	<u> </u>				
		D-6	at 1.5m (5') on Greenish-Blue Phyllite		
2.1	7'-	Refusal a	ge 1.5m (5) on Greenish-blue Engline		
	╽╶┤				
2.4	8'-				
	│				
2.74	9' 🗕				
3	10'-				
J	'				
	7				
3.4	11'-				
	⊢				
3.7	12				
	-				
4	13'-				
•					
4.3	144				
4.6	15'-				
	⊢				
4.9	16'-				
m	ft				
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-3	5%	And = 35-50%

Date Started: 11/19/99		ed: 11/19/99	Logical Environmental Soluti	Boring No.: GP-38	
Date	Finis	hed: 11/19/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	ge, CT	Inspector: Cindy Knight
De m	pth ff	Descriptio	n		Comments
		TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			!	PID = 2.4 ppm
0.6	2'-	Brown fine	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt		
0.9	3'-				re Sample 0.6 - 1.2m (2' - 4'):
	_				PID = 1.8 ppm
1.2	4' —	Brown SII	LT, little fine to coarse Gravel & Cobble		•
İ				Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-				PID = 0 ppm
1.8	6'—				
2.1	7' -	Refusal a	it 1.5m (5') on Greenish-Blue Phyllite		
'	_	,			
2.4	8'—				
2.74	9' —				
3	10'-				
3.4	11'—	,			
3.7	12				
4	13-				
4.3	14'-				
4.6	15'-				
4.9	16'—				
l m					
Soi	l Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20	-35%	And = 35-50%

Date Started: 11/19/99		11/19/99	Logical Environmental Solut	Boring No.: GP-39	
Date	Finished	d: 11/19/99	Geoprobe Boring Log	Client: Maguire Group Inc.	
Drille	er: Wayr	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	ge, CT	Inspector: Cindy Knight
De	oth ft	Descriptio			Comments
m	_"-		- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
					PID = 1.2 ppm
0.3	1'-			•	15 — 1.2 ррш
	-				
0.6	2'-	Brown fine	e to coarse SAND, little fine to coarse Gravel, trace Silt		
		2,011,111		Massa Os	ro Cample 0.6. 1.2m /21. 41\.
0.9	3'-				re Sample 0.6 - 1.2m (2' - 4'):
5.5	<u> </u>			!	PID = 0.4 ppm
1.2	4'				
1.5	5'—				
		End of Bo	oring at 1.2 meters		
1.8	6'—				
2.1	7'-				
2.4	8 7				
	🕇				
2.74	9' -				
					:
3	10'-				
3.4	11'-				
3.7	12'-				
3.1	'-				
4	13'-				
4.3	14'-				
4.6	15'-				
4.9	16'—				
m	ft_]				
Soi	Descri	otion Explanation	Trace = 0-10% Little = 10-20% Some = 20)-35%	And = 35-50%

Date	Starte	^{d:} 11/19/99	Logical Environmental Soluti	ions	Boring No.: GP-40
Date	Finish	ed: 11/19/99	Geoprobe Boring Log	Client: Maguire Group Inc.	
Drille	r: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements		Inspector: Cindy Knight
De _l	oth ft	Descriptio			Comments
		TOPSOIL	- 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
	\dashv				·
0.3	1'—				PID = 0 ppm
0.6	2' 🗖				
	-			Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				
		Brown fine	e to coarse SAND, little fine to coarse Gravel, trace Silt		PID = 0.2 ppm
	.				:
1.2	4' -				
	🕇			N4	Commis 4.0. 0.4m (41.0l).
1.5	5'-			Macro Co	re Sample 1.2 - 2.4m (4' - 8'):
					PID = 0.4 ppm
1.8	6'-				
1.0					
2.1	7'-				
	-				
2.4	8' 🕂				
2.74	۵,				
2.74					
	7	Refusal a	t 2.4 m (8') on Bluish-Green Phyllite		
3	10'-				
	4				
3.4	11'-				
l					
	7				
3.7	124				
	-				
4	13'-				
, ,					
4.3	14'-				
4.6	15'—				
	4				
4.9	16'—				
			V		
	$\lceil \rceil$				
Soi	Desc	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20)-35%	And = 35-50%

Date Started: 11/19/99		ed: 11/19/99	Logical Environmental Solut	Boring No.: GP-41	
Date	Finisl	11/19/99	Geoprobe Boring Log	Client: Maguire Group Inc.	
Driller: Wayne Lineberry Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements			Inspector: Cindy Knight		
_ De	oth f	Descriptio	n		Comments
m			13cm (5")	Macro Co	re Sample 0 - 0.6m (0' - 2'):
	\mid \dashv				
0.3	1'-				PID = 0 ppm
					:
0.0	, l				
0.6	2' –				
		Brown fin	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				PID = 0 ppm
	-				
1.2	4' —				
					•
1.5	5'			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
	<u> </u>				PID = 0 ppm
	$\lceil \rceil$:			
1.8	6'-				
	╽┤				
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
	-				
2.4	8' —				
2.74	0,				
2.74	٦				
	_	1			
3	10'-				
	-				
3.4	11'-				
2 7	12'-				
3.1	'-				
[
4	13'-				
	-	i			
4.3	14'-	1			
	-	-			
4.6	15'—				
	_				
1 ^	161				
4.9	16'—	1			
l	-	1			
m Soi	Lft LDes	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20)-35%	And = 35-50%

Date	Start	ed: 11/20/99	Logical Environmental Solut	ions	Boring No.: GP-42
Date	Finis	hed: 11/20/99		Logical Environmental Solutions Geoprobe Boring Log	
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	nge, CT	Inspector: Cindy Knight
De	oth.	Descript	ion		Comments
m			_T 13cm (5")	Macro Co	re Sample 0 - 0.6m (0' - 2'):
					PID = 0 ppm
0.3	1' -				
0.6	2'-				
		Brown f	ine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—				PID = 0.3 ppm
1.2	4' —				
	-			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'—				PID = 0 ppm
1.8	6' —				
	-	_ ,	44.5. (El) au Organish Blue Bhullito		
2.1	7'—	Refusal	at 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
2.74	9' —				
3	10'-				
	_				
3.4	_				
3.7	12'-				
	401				
4	13-				
4.3	14				
4.6	15'-				
	-				
4.9	16'-				
	-	1			
Soi	l Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 2	0-35%	And = 35-50%

Date	Starte	ed: 11/20/99	Logical Envir	onmental Solution	าร	Boring No.: GP-43
Date	Finish	ned: 11/20/99	Geoprobe Borning Log			Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Su Rot	rficial Site Investigation - Orange, C ute 1 Improvements	Т	Inspector: Cindy Knight
Dep		Descriptio			(Comments
m	-ft		13cm (5")	Macr	ro Core	e Sample 0 - 0.6m (0' - 2'):
	4	, , , , , , , , , , , , , , , , , , , ,	,	IVIACI		
0.3	1				P	ID = 0 ppm
0.0						
	٦					
0.6	2'—					
	-	Brown SI	LT, little fine to coarse Gravel &	Cobble Mac	ro Cor	e Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				-	PID = 0.2 ppm
	_				r	1D = 0.2 ppm
1.2	ل بدا					
1.2	4' –					
				Mac	ro Cor	e Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-					PID = 0 ppm
	-				Į-	- 10 – 0 ββιτι
1.8	6'-					
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phy	/llite		
2.1			. ,			
	▎ᅦ					
2.4	8'-					
İ	-					
2.74	9' _					
	101					
3	10'-					
	_					
3.4	11'-					
	_					
3.7	12					
	l _					
4	13'—					
	-	·				
4.3	14'-					
	-					
4.6	15'—					
	10					
4.9	16'—					
	-	1				
m	L ft	arintian Evalenation	Trace = 0-10% Little	= 10-20% Some = 20-35%		And = 35-50%
Soi	Des	cription Explanation	riace - 0-10% Little	= 10 20 /0 Golfic = 20-00 /0	-	00 00 70

Date	Starte	ed:		annertal Cali	tions	Boring No.: GP-44
Deta	Einia!	11/20/99	Logical Environmental Solutions Geoprobe Boring Log			Client:
Date	Finish	11/20/99				Maguire Group Inc.
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Su	urficial Site Investigation - Ora ute 1 Improvements	ange, CT	Inspector: Cindy Knight
De m		Descripti				Comments
	- "	TOPSOI	L - 18 cm (7") - Dark-Brown SILT	, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.2					i	PID = 0 ppm
0.3	1']					
0.6	2'-	.	ne to coarse SAND, little fine to c	narse Gravel trace Silt		
0.0		Brown fi	ne to coarse SAND, little line to C	oaide Olavol, hadd Olit		Commis 0.0. 4.0 (0) 41\-
0.9	3'-					re Sample 0.6 - 1.2m (2' - 4'):
1					I	PID = 0 ppm
1.2	4'-				 	
1.5	5'—					
	-{	End of B	oring at 1.2 meters			
1.8	6'—					
2.1	7'-					
2.4	8' —					
2.74	"					
3	10-					
	'`]					
3.4	11'					
3.7	12'-					
ĺ	4					
4	13'-					
	-					
4.3	14					
	-					
4.6	15'—					
	-					
4.9	16'—					
m	-		_			
Soi	l Desc	cription Explanation	Trace = 0-10% Little	e = 10-20% Some =	20-35%	And = 35-50%

Date	Started	11/20/99	Logical Environmental Solut	ions	Boring No.: GP-45
Date Finished: 11/20/99		ed: 11/20/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Way	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orar Route 1 Improvements	ige, CT	Inspector: Cindy Knight
De _l	oth ft	Descriptio	n		Comments
		ASPHALT	13cm (5")	Macro Cor	e Sample 0 - 0.6m (0' - 2'):
		Brown SIL	T, little fine to coarse Gravel	ı	PID = 0 ppm
0.3	1'			'	<u></u>
0.6	2'-				
				Moore Ca	ra Sample 0.6 - 1.2m (2' - 4'\·
0.9	3'	Brown fin	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt		re Sample 0.6 - 1.2m (2' - 4'):
5.0				i	PID = 0.7 ppm
4.0					
1.2	4' 🕇				,
				Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'				PID = 0 ppm
				1	- ιυ - υ ρ ρικ
1.8	6'-				
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
2.4	ا ا				
4.4					
2.74	9 -				
	🕂				
3	10'-	•			
3.4	114				
3.7	12				
0.1					
4	13'-				
4.3	14'-				
4.6	15'—				
	-				
4.9	16'-				
m_	ft				
Soil	Descr	iption Explanation	Trace = 0-10% Little = 10-20% Some = 2	0-35%	And = 35-50%

	Started:	11/20/99	Logical Environmental Solu	tions	Boring No.: GP-46
Date Finished: 11/20/99			Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wayn	e Lineberry	Project Location: Task 210 Surficial Site Investigation - Ora Route 1 Improvements	nge, CT	Inspector: Cindy Knight
De	pth	Descripti	ion		Comments
m			L - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown Si	ILT, little fine to coarse Gravel		PID = 0 ppm
0.6	2'				ore Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-	Brown fi	ne to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt		PID = 0 ppm
1.2	4' —				
1.5	5' —				ore Sample 1.2 - 1.5m (4' - 5'):
1.8	6'-				PID = 0 ppm
2.1	7'—	Refusal	at 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
2.74	9' —				
3	10-				
3.4	11'-				
3.7	12'-				
4	13'-				
4.3	14-				
4.6	15'—				
4.9	16' -				
m Soi	l Descrip	otion Explanation	Trace = 0-10% Little = 10-20% Some = 2	20-35%	And = 35-50%

Date Started:		ed: 11/20/99	Logical Environmental Solutions		Boring No.: GP-47
Date	Finish	ned: 11/20/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	ige, CT	Inspector: Cindy Knight
Dep	oth f	Descriptio	n		Comments
n			- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown SIL	T, little fine to coarse Gravel	!	PID = 0 ppm
0.6	2'-			Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-	Brown fin	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	l	PID = 0.2 ppm
1.2	4' -			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-				PID = 0 ppm
1.8	6' —				
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
2.74	9' —				
3	10 <u>'</u>				
3.4	11'—				8
3.7	12'-				
4	13 <u>'</u>				
4.3	14				
4.6	15'-				
4.9	16'—				
m		what is a Francisco attent	Trace = 0-10% Little = 10-20% Some = 20	n-35%	And = 35-50%
201	Desc	ription Explanation	11acc - 0-1070 Little - 10-2070 Sollie - 2	J JJ /0	7 ii id = 00 00 70

Date Started: 11/20/99 Date Finished: 11/20/99		ed: 11/20/99	Logical Environmental Solutions		Boring No.: GP-48
			Geoprobe Boring Lo	Client: Maguire Group Inc.	
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Route 1 Improvements	Orange, CT	Inspector: Cindy Knight
Dep	oth ft	Descriptio	n		Comments
m_			- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Grave	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Brown SIL	T, little fine to coarse Gravel	!	PID = 0 ppm
0.6	2'-		Over 10 Octobra trace	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3' —	Brown fin	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt		
1.2				Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-				PID = 0 ppm
1.8	6' —				
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
2.74	9' _				
2.17					
3	10'-				
3.4	11'-				
3.7	12'-				
4	13'-				
4.3	14'-				
4.6	15'-				
4.9	16' —				
m					
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Som	ne = 20-35%	And = 35-50%

Date Started:		ed: 11/20/99	Logical Environmental Solution		Boring No.: GP-49
Date	Finis	hed: 11/20/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, Route 1 Improvements	СТ	Inspector: Cindy Knight
_ De		Description			Comments
m		ASPHAL	T - 13cm (5")	cro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			i	PID = 0 ppm
0.6	2'-				
	-	Brown S	ILT, little fine to coarse Gravel Ma	acro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			1	PID = 0.3 ppm
1.2	4'-				
1.5	5'-		Ma	acro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	$\lceil \rceil$				PID = 0 ppm
1.8	6'-				
		Defect	at 1.5m (5') on Greenish-Blue Phyllite		
2.1	7'-	Refusar	at 1.5ff (5) of Greensif-Blue Frysine		
	٥, –				
2.4	8' —				
2.74	9' —				
3	10'				
3.4	11'-				
	_				
3.7	12'-				
4	13'-				
4.3	141-				
4.6	- 15'				
4.9	16'—				
	-				
m Soi	l Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-356	%	And = 35-50%

Date Started: 11/20/99		ed: 11/20/99	Logical Environmental Solutions		Boring No.: GP-50
Date	Finis	hed: 11/20/99	Logical Environmental Solutions Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements	ge, CT	Inspector: Cindy Knight
_ De	oth ft	Description	on		Comments
m			- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			I	PID = 0 ppm
	_				
0.6	2'-	Brown Si	ILT, little fine to coarse Gravel		
0.9	3'—				re Sample 0.6 - 1.2m (2' - 4'):
					PID = 0 ppm
1.2	4'-				
	-			Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5' —				PID = 0 ppm
1.8	6'-				
2.1	7'-	Refusal a	at 1.5m (5') on Greenish-Blue Phyllite		
	-				
2.4	8'-				
2.74	9' —				
	-				
3	10'-				
3.4	11'				
3.4	_				
3.7	12'-				
	-				
4	13'-				
4.3	14'-				
	-				
4.6	15'—				
	-				
4.9	16'—				
<u></u>	ft			0.050/	And - 25 50%
Soi	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 2	U-35%	And = 35-50%

Date	Starte	^{d:} 11/20/99	Logical Environm	ental Solutions	Boring No.: GP-51
Date	Finish	ed: 11/20/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Way	ne Lineberry	Project Location: Task 210 Surficial Sit Route 1 Imp	e Investigation - Orange, CT rovements	Inspector: Cindy Knight
De m	pth ft	Descriptio	n		Comments
<u></u>			- 18 cm (7") - Dark-Brown SILT, trace fine	Sand & fine Gravel	re Sample 0 - 0.6m (0' - 2'):
			rown SILT, little fine to coarse Gravel & Co	bble	PID = 0 ppm
0.3	1'-				
0.6	2'				
	-	Brown fine	to medium SAND, trace Silt	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				
	-				PID = 0.4 ppm
1.2	4'-				
1.5	5'-	Brown fine	e to coarse SAND, little fine to coarse Grav	vel & Cobble, trace Silt Macro Co	re Sample 1.2 - 1.8m (4' - 6'):
					PID = 0 ppm
1.8	6'-				
2.1	7'-	Refusal at	1.8m (6') on Greenish-Blue Phyllite		
	-				
2.4	8'-				
2.74	9 _				
3	10'-				
	4				
3.4	11'-				
	_				
3.7	12				
	-				
4	13 '				
4.3	14'-				
4.6	15'				
4.9	16'—				
m	ft	· · · · · · · · · · · · · · · · · · ·			
Soil	Descr	iption Explanation	Trace = 0-10% Little = 10-20%	Some = 20-35%	And = $35-50\%$

Date Started: 11/20/99		11/20/99	I ogical Environmental Solutions		Boring No.: GP-52
Date	Finishe		Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wayr	ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	ge, CT	Inspector: Cindy Knight
De	oth	Descriptio	n		Comments
n			- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
	-		rown SILT, little fine to coarse Gravel & Cobble		PID = 0 ppm
0.3	1'				
	-				
0.6	2'-				
		Brown fine	e to medium SAND, trace Silt		0
0.9	21			Macro Col	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			i	PID = 0.1 ppm
1.2	4' 🗕 –				
1.5	5'-	Brown fine	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Co	re Sample 1.2 - 1.8m (4' - 6'):
				1	PID = 0.5 ppm .

1.8	6'-				
	-				
2.1	7'-	Refusal a	t 1.8m (6') on Greenish-Blue Phyllite		
2.4	o, _				
2.4	$ ^{\circ}$				
2.74	9' —				
3	10'-				
3.4					
	🕇				
3.7	12'-				
4	13				
4.3	14				
	-				
4.6	15'-				
4.9	16'-				
_					
Soi	l Descri	iption Explanation	Trace = 0-10% Little = 10-20% Some = 20)-35%	And = 35-50%

Date	Started	11/20/99	Logical Environmental Solu	tions	Boring No.: GP-53
Date Finished: 11/20/99			Geoprobe Boring Log		Client: Maguire Group Inc.
Driller: Wayne Lineberry		ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements		Inspector: Cindy Knight
De	pth ft	Description	on		Comments
		TOPSOIL	18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
	-	Orange-B	rown SILT, little fine to coarse Gravel & Cobble		•
0.3	1'				PID = 0.6 ppm
0.6	2'-				
		Brown fin	e to medium SAND, trace Silt	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				
					PID = 0.3 ppm
1.2	4' -				
	-				0 1 40 40 (41 01)
1.5	5'—	Brown fin	e to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Co	re Sample 1.2 - 1.8m (4' - 6'):
					PID = 0 ppm
4.0					
1.8	6'				
	🕇				
2.1	7'-	Refusal a	at 1.8m (6') on Greenish-Blue Phyllite		
٠.					
2.4	8' 🚽				
	-				
2.74	9' —				
	4				
3	10'-				
0					
	1				
3.4	11'-				
3.7	124				
0.1	_				
4	13'-				
] -				
4.3	14'-				
4.6	15				
4.9	16'	3			
m	l _{ff}				
	Descri	otion Explanation	Trace = 0-10% Little = 10-20% Some = 2	20-35%	And = 35-50%

Date Started: 11/20/99 Date Finished: 11/20/99		11/20/99	∐Logical Environmental Solutions		Boring No.: GP-54
					Client: Maguire Group Inc.
Driller: Wayne Lineberry		ne Lineberry	Project Location: Task 210 Surficial Site Investigation - Ora	ange, CT	Inspector: Cindy Knight
	pth _f	Description	on		Comments
m			- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Coi	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			i	PID = 0.3 ppm
0.6	2'-	Brown fin	e to medium SAND, trace Silt & fine to coarse Gravel		
0.0				Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				PID = 0 ppm
	🕂	Orange-E	Brown SILT, little fine to coarse Gravel		
1.2	4'-				.
			OUT 1991. Constant of Company Company	Macro Co	re Sample 1.2 - 1.8m (4' - 6'):
1.5	5'-	Grayish-E	Brown SILT, little fine to coarse Gravel & Cobble	ı	PID = 0 ppm
1.8					
1.0	6'-				
2.1		Refusal a	t 1.8m (6') on Greenish-Blue Phyllite		!
2.4	8'-				
	-				
2.74	9' —				
3	10'-				
3.4	11'-				
3.7	12'-				
4	13'-				
4.3	14'-				
4.6	15'				
4.9	16'—				
m	ft			20.0521	=:
Soil	Descrin	otion Explanation	Trace = 0-10% Little = 10-20% Some = 2	20-35%	And = 35-50%

Date Started: 11/20/99 Date Finished: 11/20/99		d: 11/20/99	Logical Environmental Solutions		Boring No.: GP-55	
		ed:	Ge	Geoprobe Boring Log		Client: Maguire Group Inc.
Driller: Wayne Lineberry		yne Lineberry	Project Location: Ta	ask 210 Surficial Site Investiga Route 1 Improvements	ation - Orange, CT	Inspector: Cindy Knight
De	oth ff	Descripti	on			Comments
m				Brown SILT, trace fine Sand & fine	Gravel Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-				!	PID = 0.1 ppm
0.6	2'	Brown fil	ne to medium SAND,	trace Silt & fine to coarse Gravel		
0.0	_					
					Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'				!	PID = 0.5 ppm
	┤┽		Brown SILT, little fine	to coarse Gravel		
1.2	4'					
1.5	5'-	Gravish-	Brown SILT little fine	to coarse Gravel & Cobble	Macro Co	re Sample 1.2 - 1.8m (4' - 6'):
1.0		Crayion	D101111 0121, 11110 11110			PID = 0 ppm
	7					
1.8	6'-					
	-					
2.1	7'-	Refusal a	at 1.8m (6') on Green	ish-Blue Phyllite		
2.4	ا ۾					
Z. 4	$ $ $ $					
	7					
2.74	9' 🕇					
	-					
3	10					
3.4	11.					
0						
3.7	124					
	-					
4	13'-					
4.3	14'-					
7.0	'					
4.0	 					
4.6	15					
4.9	16'—					
m	ft					
Soil	Descr	iption Explanation	Trace = 0-10%	Little = 10-20%	Some = 20-35%	And = 35-50%

Date	Start	ted: 11/20/99	Logical	Environmenta	al Solutions	Boring No.: GP-56
Date Finished: 11/20/99			Geoprobe Boring Log		Client: Maguire Group Inc.	
Drille	er: Wa	ayne Lineberry	Project Location: Ta	ask 210 Surficial Site Inves Route 1 Improveme	tigation - Orange, CT ents	Inspector: Cindy Knight
De	pth	Descripti	on			Comments
<u>m. — </u>				Brown SILT, trace fine Sand &	fine Gravel Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'					PID = 0 ppm
0.6	2' —	Brown fil	ne to medium SAND,	trace Silt & fine to coarse Grav	rel	
0.9	3'—					re Sample 0.6 - 1.2m (2' - 4'): PID = 0.1 ppm
	-	 Orange-	Brown SILT, little fine	- 	_	
1.2	4'-					
1.5	5' —	Grayish-	Brown SILT, little fine	to coarse Gravel & Cobble		re Sample 1.2 - 1.8m (4' - 6'):
	-					PID = 0.3 ppm
1.8	6'-					
2.1	7'—	Refusal a	at 1.8m (6') on Green	ish-Blue Phyllite		
<u>.</u>						
2.4	8' —					
2.74	9' —					
	-					
3	10	-				
	_					
3.4	11'—					
3.7	12'-					
	-					
4	13 '					
4.3	14'-					
4.6	15' 					
4.9	- 16'					
	_					
m Soil	Des	cription Explanation	Trace = 0-10%	Little = 10-20%	Some = 20-35%	And = 35-50%

Date	Start	ed: 11/21/99	Logical Environmental Soluti	ons	Boring No.: GP-57
Date	Finisl	hed: 11/21/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	je, CT	Inspector: Cindy Knight
De	oth ft	Descripti	on		Comments
		TOPSOI	L - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
	-				PID = 0.2 ppm
0.3	1'—			r	-1D - 0.2 ppm
	4				
0.6	2'—				
0.0		Dark-Bro	own fine SAND, little fine to coarse Graevel & Cobble, trace Silt		
				Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			i	PID = 0 ppm
	$\mid \dashv$				
1.2	4'-				
1.5	5'—			Macro Co	re Sample 1.2 - 2.1m (4' - 7'):
		Dark-Bro	own SILT, trace Clay & fine to coarse Gravel	1	PID = 0 ppm
	٦				
1.8	6'—				
	-				
2.1	7'-				
	▎▗▍				
2.4	8' 📗				
∠ .¬	\lfloor				
		Refusal	at 2.1m (7') on Greenish-Blue Phyllite		
2.74	9, –				
	-			:	
3	10-				
	╽╶┩				
3.4	11-				
	40.				
3.7	12-				
4	13'-				
	-				•
4.3	14'-				
	╽╶╽				
4.6	15'-				
7.0	'				
4.9	16'—				
	$\mid \dashv$				
m	ft		7 0 400/ 170/ 40 000/	250/	And - 05 500/
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-	ა ე%	And = 35-50%

Date	Start	red: 11/21/99	Logical Environmental Solution	ns	Boring No.: GP-58
Date	Finis	hed: 11/21/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, C Route 1 Improvements	СТ	Inspector: Cindy Knight
De	oth	Descriptio			Comments
m	ft		40 cm (711) Dody Brown SILT trace fine Send & fine Cravel		re Sample 0 - 0.6m (0' - 2'):
			Wat		
0.3	1'-			F	PID = 0 ppm
	$\mid \cdot \mid$				
0.6	2'-	Dark-Brov	vn fine SAND, little fine to coarse Graevel & Cobble, trace Silt		
	╛		Mac	cro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			ı	PID = 0.2 ppm
	-			•	5.2 pp
1.2	4'-				
	$\mid \dashv$				
1.5	5'-			cro Co	re Sample 1.2 - 2.1m (4' - 7'):
	_	Dark-Brov	wn SILT, trace Clay & fine to coarse Gravel	ı	PID = 0 ppm
1.8	6'-				A STATE OF THE STA
2.1	7'-				
2.4	8'_				
∠. -⊤	$ \H$				
2.74	۵,	Refusal a	at 2.1m (7') on Greenish-Blue Phyllite		
2.14					
3	10'—				
3.4	11'				
3.7	12'-				
	-				
4	13 <u>'</u>				
	-				
4.3	14'				
	-				
4.6	15'-				
	-				
4.9	16'				
m	ft		And the second s		
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	6	And = 35-50%

,

Date	Start	ed: 11/21/99	Logical Environmental Soluti	ons	Boring No.: GP-59
Date Finished: 11/21/99			Logical Environmental Soluti Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orang Route 1 Improvements	e, CT	Inspector: Cindy Knight
De	oth	Descriptio	n		Comments
m	,	TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-				PID = 0 ppm
0.6	2'-	Dark-Brov	yn fine SAND, little fine to coarse Graevel & Cobble, trace Silt		
0.9	3'-			Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.5				I	PID = 0.1 ppm
1.2	4'				
1.5	5'-			Macro Co	re Sample 1.2 - 2.1m (4' - 7'):
1.5		Dark-Brov	wn SILT, trace Clay & fine to coarse Gravel		PID = 0.3 ppm
				·	
1.8	6'-				
2.1	7'-				
2.4	8' —				
		Refusal a	at 2.1m (7') on Greenish-Blue Phyllite		
2.74	9'-				
3	10				
3.4	114				
	╽╡				
3.7	12				
4	13'-				
4.3	14'				
16	15				
4.6	l'o-				
4.0					
4.9	0				
m					
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-	35%	And = 35-50%

Date	Start	ed: 11/21/99	Logical Environmental Solution	S Boring No.: GP-60
Date Finished: 11/21/99			Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
Dep	oth.	Descriptio	n	Comments
m			to (TII) D. I. D CHT trace fine Cond & fine Croyol	o Core Sample 0 - 0.6m (0' - 2'):
	-		mass	
0.3	1'-			PID = 0 ppm
0.6	2'	Grayish-B	rown SILT, little fine to coarse Gravel & Cobble	
	_		Macro	o Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—			PID = 0 ppm
				F15 = 0 ppm
1.2	4'—			
1.2	, I			
	┇		Macro	Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-			PID = 0 ppm
	-			PID = 0 ppm
1.8	6'-			
2.1	7'-	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite	
2.1		(Colubal d		
	1			
2.4	8'-			
	-			
2.74	9' _			
	_			
_	401			
3	10			
3.4	11'-			
	-			
3.7	12'-			
4	13			
4.3	14			
4.6	15'-			
4.9	16'—			
	╽┤			
m Cair	Do-	eription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date Started: 11/21/99			Logical Environmental Solutions		Boring No.: GP-61
Date	Finis	shed: 11/21/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange Route 1 Improvements	, CT	Inspector: Cindy Knight
De m	pth ft	Description	on		Comments
11.1		TOPSOIL	L - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	lacro Cor	re Sample 0 - 0.6m (0' - 2'):
	-				
0.3	1'-	:		ı	PID = 0 ppm
	_				
0.6	2'—				
0.0		Grayish-I	Brown SILT, little fine to coarse Gravel & Cobble		
			N	/lacro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			į	PID = 0.2 ppm
	-				• •
1.2	4' —				
	_				
1.5	5' —		<u> </u>	/lacro Co	re Sample 1.2 - 1.5m (4' - 5'):
					PID = 0 ppm
1.8	6'-				
	-				
2.1	7'-	Refusal	at 1.5m (5') on Greenish-Blue Phyllite		
	_				
2.4	8' —				
	_				
2.74	9' _				
,					
3	10'—				
	_				
3.4	11'—		ı		
	_				
3.7	12'-				
	_				
4	13 '				
4	13				
4.3	14'				
	_				
4.6	15'—				
	_				
4.9	16'—				
m	ft				
	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-38	5%	And = 35-50%

Date	Start	ed: 11/21/99	Logical Environmental Solution	ns	Boring No.: GP-62
Date	Finis	hed: 11/21/99	Geoprobe Boring Log		Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, (Route 1 Improvements	СТ	Inspector: Cindy Knight
De	pth	Descriptio	on		Comments
m	Γ" Τ		40 (71) Dark Brown CHT trace fine Sand & fine Crayol	cro Cor	re Sample 0 - 0.6m (0' - 2'):
	_		11100		PID = 0.3 ppm
0.3	1'= 				
0.6	2'-	Grayish-B	Brown SILT, little fine to coarse Gravel & Cobble		
	\mid \dashv	•	Ма	icro Coi	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—				PID = 0.1 ppm
	╽┤				о. г ррш
1.2	4'-				
			Ma	cro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'—				PID = 0 ppm
	╽╡				, 15 opp
1.8	6'-				
		Defined a	at 1.5m (5') on Greenish-Blue Phyllite		
2.1	7'	Refusal a	at 1.5m (5) on Greensh-Dide Phymie		
2.4	8'-				
2.7	ľ				
2.74	9' 🗕				
	_				•
3	10'-				
3.4	11'-				
	-				
3.7	12				
4	13'-				
4.3	14				
4.6	15				
4.9	16'-				
ન.ઝ	[]				
m					
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	6	And = 35-50%

Date	Starte	ed: 11/21/99	Logical Environmental Solutions	Boring No.: GP-63
Date	Finish	ned: 11/21/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	pth,	Descriptio	n	Comments
n			to (TID Date Description Cond & fine Crown)	ore Sample 0 - 0.6m (0' - 2'):
0.3	1'-			PID = 0 ppm
0.6	2'	Grayish-B	Brown SILT, little fine to coarse Gravel & Cobble	
0.9	3'-		Macro C	ore Sample 0.6 - 1.2m (2' - 4'):
0.5				PID = 0.2 ppm
1.2	4'-			
	_		Macro C	ore Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-			PID = 0 ppm
1.8	6'-	(
2.1	7'-	Refusal a	at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8' —			
2.74	9' —			;
3	10-			
3.4	11'-			
3.7	12			
3.1				
4	13'-			
4.3	14'-			
4.6	15'-			
4.9	16'—			
m	ft			
Soil	Desc	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	ted: 11/21/99	Logical Environmental Solutions	Boring No.: GP-64
Date Finished: 11/21/99			Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	pth	Descriptio	n	Comments
n			10 and (70) Deals Pressure CHT trace fine Send 9 fine Gravel	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-		J	PID = 0 ppm
Ų.S	$\lfloor ' floor$:
0.6	2'-		OUT 1994 fire to grown Croud & Cabble	
0.0	┌┪	Grayish-B	rown SILT, little fine to coarse Gravel & Cobble	CI- 0 C 4 2m (2l 4l)
0.9	3'-			re Sample 0.6 - 1.2m (2' - 4'):
	-			PID = 0 ppm
1.2	4'-			
	-		Macro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'			PID = 0 ppm
				оррии
1.8	6'-			
2.1	7' —	Refusal a	t 1.5m (5') on Greenish-Blue Phyllite	
	ľ _		.,	
2.4	8'-			
	-			
2.74	9'—			
	-			
3	10'—			
	_			
3.4	11'-			!
3.7	12			
0.7	-			
4	13'-			
4.3	14		,	
	-			
4.6	15'-			
4.9	16'—			
m	l ft			
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	ed: 11/21/99	Legical Environmental Calutier	16	Boring No.: GP-65
Doto	Finis		Logical Environmental Solution Geoprobe Boring Log	15	Client:
מופט	FIIIIS	11/21/99)		Maguire Group Inc.
Drille	er: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, C Route 1 Improvements	Т	Inspector: Cindy Knight
De m	pth	Descriptio	on		Comments
		TOPSOIL	18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel Mac	ro Cor	re Sample 0 - 0.6m (0' - 2'):
				F	PID = 0 ppm
0.3	1'-				
0.6	2'-	Grayish-B	Brown SILT, little fine to coarse Gravel & Cobble		
			Mac	ro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-			í	PID = 0.2 ppm
1.2	4'-				
			Mac	ro Co	re Sample 1.2 - 1.5m (4' - 5'):
1.5	5'-				PID = 0 ppm
1.8	6'-				
		B.C. of	4.4.5 Cu (FI) on Ozoopieh Phys Phyllife		
2.1	7'-	Refusal a	at 1.5m (5') on Greenish-Blue Phyllite		
2.4	8' —				
2.74	9 –				
_	4.01				
3	10'-				
3.4	11'—	:			
	101				
3.7	12'-				
	12,				
4	13'	·			
4.3	14				
4.6	15'—				
۵.۳					
4.9	16'—				
7.5					
m					
Soil	Des	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%		And = 35-50%

Date	Starte	ed: 11/21/99	Logical Environmental Solutions	Boring No.: GP-66
Date	Finis	hed: 11/21/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De m	pth ft	Descriptio	n	Comments
		TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel Macro Co	ore Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Dark-Brov	vn fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.2 ppm
0.6	2'-			
			Macro Co	ore Sample 0.6 - 1.2m (2' - 4'):
0.9	3'—			PID = 0 ppm
1.2	4'-	Orange-B	rown SILT, little fine to coarse Gravel & Cobble	
4 -			Macro Co	ore Sample 1.2 - 2.1m (4' - 7'):
1.5	5'-			PID = 0 ppm
1.8	6'—			
	4			
2.1	7'—			
2.4	8' —			
2.74	9'	Refusal a	t 2.1m (7') on Greenish-Blue Phyllite	:
3	10-			
	-			
3.4	11'-			
3.7	12'-			
.,	$\mid \dashv$			
4	13 '-			
	-			
4.3	14'-			
4.6	15'			
-		-		
4.9	16'—			
	-			
m Soil	Doco	rintion Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Starte	ed: 11/21/99	Logical Environmental Solutions	Boring No.: GP-67
Date	Finish	ned: 11/21/99	Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	er: Way	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
De	oth ft	Descriptio		Comments
		TOPSOIL	18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel Macro Co	ore Sample 0 - 0.6m (0' - 2'):
0.3	1'-	Dark-Brov	wn fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.1 ppm
0.6	2'-			
0.9	3'-		Macro Co	ore Sample 0.6 - 1.2m (2' - 4'): PID = 0.3 ppm
1.2	4' —	Orange-B	Brown SILT, little fine to coarse Gravel & Cobble	
1.5	5'		Macro Co	ore Sample 1.2 - 2.1m (4' - 7'): PID = 0 ppm
1.8	6' —			
2.1	7'-			
2.4	8' —			
2.74	9' _	Refusal a	at 2.1m (7') on Greenish-Blue Phyllite	
3	10'-			
3.4	11'-			
3.7	12-			
4	13'-			
4.3	14'-			
4.6	15'—			
4.9	16'—			
m	ft			
Soil	Descr	ription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = $35-50\%$

Date	Starte	ed: 11/21/99	Logical Environmental Solutions	Boring No.: GP-68
Date	Finish		Geoprobe Boring Log	Client: Maguire Group Inc.
Drille	r: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight
Dep	oth,	Descriptio	n	Comments
0.3	11	TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel Macro Col	re Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
	2'-	Dark-Brov	wn fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'-			re Sample 0.6 - 1.2m (2' - 4'): PID = 0.2 ppm
1.2	 4'	Orange-B	rown SILT, little fine to coarse Gravel & Cobble	
1.5	5' —			re Sample 1.2 - 2.1m (4' - 7'): PID = 0 ppm
1.8	6' —			
2.1	7' — —			
2.4	8' — —	Refusal a	at 2.1m (7') on Greenish-Blue Phyllite	
2.74	$\mid \mid$			
	10'-			
3.4				
	_			
4	13-			
4.3 4.6	14-			
	16'-			
m		cription Explanation	Trace = 0-10% Little = 10-20% Some = 20-35%	And = 35-50%

Date	Start	^{ed:} 11/21/99	Logical Environmental Soluti	ions	Boring No.: GP-69
Date Finisl		11/21/99	Geoprobe Boring Log	Client: Maguire Group Inc.	
Drille	r: Wa	ayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Oranç Route 1 Improvements		Inspector: Cindy Knight
Dep m	oth ft	Descriptio	n		Comments
		TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			I	PID = 0.1 ppm
	\exists				
0.6	2'-				
		Grayish-E	Brown SILT, little fine to coarse Gravel & Cobble	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'			!	PID = 0 ppm
1.2	4' —			-	
	-			Macro Co	re Sample 1.2 - 2.1m (4' - 7'):
1.5	5'				
	-				PID = 0 ppm
1.8	6'-				
	\mid \dashv				
2.1	7'-				
	$\mid \dashv$				
2.4	8' —				
		Refusal a	t 2.1m (7') on Greenish-Blue Phyllite		
2.74	9' –				
	10				
3	10				
3.4	11'-				
	4				
3.7	12'-				
	-				
4	13 '-				
4 ^					
4.3	14				
4.6	15'-				
4.9	16'—				
	$\mid \dashv$				
m	<u>ft</u>	<u> </u>	Trace = 0-10% Little = 10-20% Some = 20	35%	And = 35-50%
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 20	-00 /0	Alia - 33-30 /0

Date Start		ed: 11/21/99	Geoprobe Boring Log		Boring No.: GP-70
Date Finish					Client: Maguire Group Inc.
Driller: Wayne Lineberry			Project Location: Task 210 Surficial Site Investigation - Oran Route 1 Improvements		Inspector: Cindy Knight
De m	oth ft	Descri	ption		Comments
		TOPS	OIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Co	re Sample 0 - 0.6m (0' - 2'):
0.3	1'-			I	PID = 0.1 ppm
0.6	2'				
0.9	3'-	Grayi	sh-Brown SILT, little fine to coarse Gravel & Cobble		re Sample 0.6 - 1.2m (2' - 4'): PID = 0.3 ppm
1.2	4'-				
1.5	5' —				re Sample 1.2 - 2.1m (4' - 7'):
	-				PID = 0 ppm
1.8	6'—				
2.1	7'-				
2.4	8' —				
2.74	9' —	Refus	sal at 2.1m (7') on Greenish-Blue Phyllite		
3	10'-				
3.4	11'—				
3.7	12'-				
4	13 <u>'</u>				
4.3	14'-				
4.6	15'— —				
4.9	16'—				
Soi	Des	cription Explanation	on Trace = 0-10% Little = 10-20% Some = 20)-35%	And = 35-50%

Date	Starte	ed: 11/21/99	Logical Environmental Solutions Geoprobe Boring Log		Boring No.: GP-71
Date	Finish				Client: Maguire Group Inc.
Drille	er: Wa	yne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orar Route 1 Improvements	ige, CT	Inspector: Cindy Knight
Dep	oth ft	Descriptio			Comments
		TOPSOIL	- 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Cor	re Sample 0 - 0.6m (0' - 2'):
	┨				
0.3	1'-				PID = 0 ppm
0.6	2'				
0.0					
0 0	۱ ا	Grayish-E	Brown SILT, little fine to coarse Gravel & Cobble	Macro Co	re Sample 0.6 - 1.2m (2' - 4'):
0.9	3'-				PID = 0 ppm
1.2	4'-				
	-			Maara Ca	ro Comple 1.2 2.1m (4' 7'):
1.5	5'—				re Sample 1.2 - 2.1m (4' - 7'):
					PID = 0 ppm
1.8	6'—				
	╽╺┪				
2.1	7'-				
۷. ۱	$\begin{bmatrix} 1 \end{bmatrix}$				
- 4					
2.4	8'7				
		Refusal a	t 2.1m (7') on Greenish-Blue Phyllite		
2.74	9' —				
	-				
3	10'-				
	$\mid \dashv$				
3.4	11'-				
3.7	121				
J.1	'-				
4	13				
4.3	14'-				
	-		•		
4.6	15'-				
4.9	16'-				
m	ft		The state of the s		
Soil	Desc	cription Explanation	Trace = 0-10% Little = 10-20% Some = 2	0-35%	And = 35-50%